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I

THE UNIVERSITY AND THE PUBLIC[1]

Colleges and universities have lately been objects of public suspicion. The fact is more significant than the criticism which it has inspired. It indicates public interest and concern. It voices a belief that the success of self-government depends ultimately upon education, that the school is the conservator of the state. The fact that the criticism comes so largely from the public as distinct from professional educators is especially significant. It indicates that the public is unwilling that education should be imposed upon it from above, or be determined by what a particular class conceives to be the public good. The public has its own ideas about what is good for it. For these ideas, it demands recognition not only in the laws of a self-governing people, but also in their education. The demand is a legitimate demand of democracy. Indeed, it is a proof that democracy exists in fact, and is not simply a vision or a hope.

The criticism has not, however, been very effective. During the past quarter of a century, there have been many important educational reforms, but these have been more often the results of the clear vision of enthusiastic and determined educators than the results of public criticism. Philanthropic enterprise rather than an intelligent public demand has motived them. This fact gives an added sig-

[1] Address delivered at the Annual Convocation of the University of the State of New York, Albany, N. Y., October 23, 1914.

nificance to the criticism to which I have referred. For education in this country, as its history shows, was begotten by philanthropy, and has been, until quite recently, supported by philanthropy. Even today our greatest universities are almost entirely dependent upon the munificence of individuals. Public support of public instruction has been slow in coming, it has been grudgingly and reluctantly given, it has been won by the untiring efforts of a few, and it is still regarded largely as a gift to the humane aspirations of a class, rather than as the most important item in the budget of the state. Indeed the conception of education as a species of philanthropy rather than as the attempt of a self-governing people to give controlling and formative expression to their aims, their hopes, and their needs, still largely dominates the popular mind. Yet the public criticism which we have recently had is a clear indication of a changing attitude. Much of it has been thoroly captious and unintelligent. Many of its proposals would be useless or destructive if put into practise. But those who have to bear it, may bear it not only with fortitude, but with satisfaction, if it is a guarantee, however small, of a public demand that education cease to be thought of as a thing primarily dependent upon the benevolence of the rich or the charity of the state.

One important reason why much of the criticism has been ineffective and unintelligent is to be found in the fact that the criticism is based on ignorance of what the universities have been trying to do and of what they have been called upon to do. Consequently complaints that universities are not doing certain things are more frequent than intelligent criticism of what they are doing. Fortunately, however, it is among human possibilities that what our universities are doing is decidedly important and decidedly worth while. That so much money should be given freely for their support, that so many men should devote their lives unselfishly and often heroically to their university obligations, and that so many students, in steadily growing numbers, should seek the university with high

hopes and ambitions, is ample proof that our universities are not performing their tasks blindly, stupidly, and ineffectively. It is just because they are performing their tasks so well that they are one of our greatest glories. I yield to none in this estimate of them. When I contemplate education in this country generally, I find the attempt to be a disinterested and judicious philosopher rivalled by the desire to be a trumpeting and enthusiastic patriot. The history of our universities is measured by decades. That of those other lands where we have been wont to suppose that the home of civilization and culture is to be found, is measured by centuries. Yet when we institute a comparison, that discrepancy in time can be entirely disregarded. We can venture the comparison on a level, with no anxiety about the result. We may be lacking in the enchantments of age, we may be lacking in the mellowness of academic traditions, we may be lacking in those habiliments of learning which are the imputations of intelligence, but we are not lacking in zeal for intelligence itself, or in the means, the equipment, or the men to make it effective. Other lands have richer archives, but none has better universities.

What is it that our universities have been doing during their brief history? They have been raising the standard of professional instruction and providing an opportunity for advanced academic or post-graduate instruction. They have undertaken this task on their own initiative. Or rather, I should say, it has been undertaken by them because of the initiative and energy of a few great leaders. The histories of American colleges over fifty years old read very much alike. They began, for the most part, in small bequests, or in the cooperation of a small group of like-minded men, and had as their aim the provision for what was called a liberal education. By that was meant familiarity with the ideas and languages which hold the literary heritage of cultivated people, some acquaintance with mathematics and physics, and the ability to express oneself with clearness and elegance. It was not, as has been commonly stated, an education especially designed to

prepare young men for the ministry. Many colleges were founded with that design principally in mind, but an examination of the distribution of the early graduates shows what one would naturally expect, that they were quite normally divided among the various walks of life. College graduates soon became the leaders in all the professions. Few colleges, however, were content to remain simply schools for liberal culture. One reads repeatedly of the propaganda of restless professors in the interest of a wider conception. Their efforts were often unsuccessful. They frequently failed in winning the support of their colleagues or of the benefactors of their colleges. But they lookt for an education which should progressively embrace the learned professions, the mechanic arts, and all the industries of men.

As early as 1826, for instance, Amherst College undertook to establish a course of study parallel to the liberal course. This "Parallel course," to quote from Professor Tyler's history of the college,[2] differed from the old, "first, in the prominence which was to be given to English literature; second, in the substitution of the modern for the ancient languages, particularly the French and Spanish, and should room be found hereafter, German or Italian, or both, with particular attention to the literature in these rich and popular languages; third, in mechanical philosophy, by multiplying and varying the experiments so as to render the science more familiar and attractive; fourth, in chemistry and other kindred branches of physical science, by showing their application to the more useful arts and trades, to the cultivation of the soil, and to domestic economy; fifth, in a course of familiar lectures upon curious and labor-saving machines, upon bridges, locks, and aqueducts, and upon the different orders of architecture, with models for illustration; sixth, in natural history, by devoting more time to those branches which are now taught, and introducing others into the course; seventh, in modern history, especially the history of the Puritans, in connection with the civil

[2] Tyler, W. S., *A history of Amherst College*, pages 64 and 65.

and ecclesiastical history of our own country; eighth, in the elements of civil and political law, embracing the careful study of the American constitutions, to which may be added drawing and civil engineering." The announcement of this course attracted many students to the college, but it failed for lack of support and for lack of competent teachers.

President Johnson's announcement of King's College affords another illustration. I quote it from Dean Keppel's book on Columbia.[3] "A serious, virtuous, and industrious Course of Life being first provided for, it is further the Design of this College to instruct and perfect Youth in the Learned Languages, and in the Arts of Reasoning exactly, of Writing correctly, and Speaking eloquently; and in the Arts of Numbering and Measuring, of Surveying and Navigation, of Geography and History, of Husbandry, Commerce, and Government; and in the Knowledge of all Nature in the Heavens above us, and in the Air, Water, and Earth around us, and the various kinds of Meteors, Stones, Mines, and Minerals, Plants and Animals, and of every Thing useful for the Comfort, the convenience, and Elegance of Life, in the chief Manufactures relating to any of these things; and finally, to lead them from the Study of Nature, to the Knowledge of themselves, and of the God of Nature and their duty to Him, themselves and one another; and everything that can contribute to their true Happiness both here and hereafter." That announcement was made in 1754, but it is only within our own memory that Columbia University has actively entered on the realization of so extensive an undertaking.

Such visions of a promised land abound, but the college was not destined to enter it. Professional schools, scientific schools, technical schools, and schools for teachers were founded independently, and the college was confined to its programme of liberal studies. Its rivals soon began to influence it, and it began to influence them. They increasingly lookt to the college for their better-prepared students, and the college in its turn actively began to under-

[3] Keppel, Frederick P., *Columbia*, page 64.

take this preparation. The result of this reciprocal influence is familiar. Professional schools, scientific schools, technical schools, and schools for teachers have been progressively becoming graduate schools. That is, they have become or are becoming schools which presuppose a college course either in whole or in part. Our colleges still offer courses of liberal study, but their chief function is rapidly becoming that of preparing their students to enter other institutions of learning. That is no small cause for the popular dissatisfaction with them. In perfecting a closer affiliation with graduate schools they have lost in immediate contact with the public. But the public is apt to overlook the fact that the change in the college has resulted in a significant advance in standards and quality of all professional and technical instruction.

The movement which I have thus briefly sketched culminates today in the university. Here we find a growing number of professional and technical schools grouped around a college. Here the college is primarily a feeder for the other branches of the university. Here it is more rapidly than elsewhere losing its position as an institution for liberal culture. But the university gains thereby in its own efforts to perfect the quality of its work. The public may be robbed of the college graduate of liberal views and philosophical training, but it receives instead better lawyers, physicians, ministers, engineers, chemists, teachers, yes, and even nurses and household managers. The public has lost, but it has also gained. The university can not rationally be blamed for what it has thus done.

It has, moreover, undertaken to do something more. Our universities have been not only advancing the standard of professional instruction, but they have also been providing an opportunity for advanced academic instruction. Their success in this direction evokes the astonishment and admiration of every one familiar with it. A quarter of a century ago they counted their advanced students by tens. Now they count them by hundreds and thousands. Then their equipment and resources were meagre and in-

adequate. Now they are unsurpast. In this direction of advanced academic instruction the university takes toward the college the same attitude that it takes in the direction of its professional instruction. It regards the college as a feeder. Its advanced work is graduate work, presupposing a college course and open only to students who have had such a course or an education which can be reasonably regarded as its equivalent.

By many, this advanced graduate work of the university, leading out, as it does, into all lines of literary, historical, philosophical, and scientific research, is regarded as the university's most important undertaking. By it the bounds of human knowledge are extended; the whole work of the university is stimulated and kept actively progressive; all that is new or invigorating or promising, the world over, is brought to the attention of inquiring minds to be seized upon, used, and evaluated. This work calls out the ablest scholars, creates the specialist, and gives distinction to the university. So important is it for the life of scholarship that the university looks with a jealous eye upon every research foundation which is made independent of university affiliations. So vital is it to effective and inspiring teaching that professional schools are no longer content simply to confine their work to the preparation of youth for the practise of the professions, but they are seeking ways and means to promote research work in all those branches of knowledge that are the foundations of successful professional practise.

This important work is largely hidden from the public eye. It has little publicity and excites little public interest. The world of scholars may take note of it. Eager students may search it out and choose their university as a result of their search. But the public has little direct access to it. Those who have access are graduate students; and it is the aim of the university to subject these students to a rigorous process of selection so that only those of demonstrated attainments may enter upon the best which the university has to give. Here, too, we may find a cause for popular

complaint. It may easily appear to the public that the university in its supreme undertaking has quite forgotten that the public exists. Who are these Masters of Arts and Doctors of Philosophy upon whom the university professes to expend its best resources? But ask these Masters and Doctors themselves, and they will say, however poor their own attainments have been, that they are men and women who have directly shared in the great enterprise of learning, and seen a vision of the conquest of nature by the mind of man. In helping to that vision the university has not been stupid or incompetent. It has been doing the public a very great service.

There is, however, a feature of the graduate work of our universities on which they may look with anxiety. That work is far less genuine research than it is professional training for teachers. If the colleges feed the university with students, it in turn feeds the colleges and schools with te- .ers. So general is this tendency that entrance upon .uate work is commonly considered as the deliberate .option of an academic career. This result is not so much .ne outcome of any consciously adopted aim of the university itself as it is of the demand which the colleges and the teaching profession generally have made upon it. Colleges and institutions of higher learning have multiplied with remarkable rapidity, and have put upon the universities the responsibility of providing an adequate teaching force. University degrees are rapidly becoming indispensable prerequisites of good and well-paid positions even in our high schools. As a result, the noteworthy increase in the number of graduate students, which is recorded year after year, does not indicate a corresponding increase in the number of those who are devoting their energies to research or to extending the boundaries of human knowledge. It indicates rather that our schools and colleges are being provided with better-trained and more efficient teachers. The university is keenly alive to this situation. It does not shirk, it welcomes, the responsibility thus put upon it, but it is growing solicitous about

its great distinction, that of being the aggressive promoter of science.

It is time that I should draw the conclusion I intend from this consideration of what the activities of the university are when lookt at from the university's point of view. For I am here concerned with the relation of the university to the public. I have been interested in indicating that that relation is not bad. It is decidedly good. The university has undertaken a most important problem and is steadily solving it with steadily increasing success. In this regard it needs criticism far less than it needs hearty cooperation and support. Yet I firmly believe that in doing so well what it has been doing, the university has unfortunately restricted its influence. It is missing an opportunity larger than any it has yet entered upon, the opportunity, namely, of directly leading and moulding public opinion.

It is not difficult to see why this is so. From what I have said, from even such a cursory and inadequate sketch of what our universities have been doing and are doing, it appears to be clear that the one central and absorbing problem on which they have been engaged, is that of the internal organization of academic and professional instruction. They have sought internal institutional perfection and solidarity. The schools feed the colleges, the colleges feed the universities, and the universities, in turn, feed the schools and colleges, and train men and women for the professions. To make that circle perfect and to provide adequately for that training have been the principal and engrossing occupations. The influence of the university on the public has thus been indirect. As an institution it has stood apart from public life, ministering to that life mainly thru the services which its graduates and officers render to the state, but seldom participating in that life directly or attempting actively to control it. As a consequence it appears to many that the university is primarily engaged in conferring degrees rather than in the great and important business of public instruction.

This situation is reacting upon the university to its own internal damage. This is a matter upon which I should not dwell at length, for it concerns university authorities much more than it concerns the public. Yet it is clear to any careful student of university organization, that the university is controlled by the idea that it is expected to confer degrees. This idea controls the requirements for admission to the university, the status of students, the divisions of knowledge, the subject matter of courses of instruction, the methods of instruction, and the scholarly responsibilities of both students and teachers. Degrees have not been regarded as university prizes to be attained only by those who have attained distinction, but as awards which every entering student will receive after the completion of an approved curriculum. Students who are irregular, or who do not wish to conform to the discipline required for a degree, or who have not fulfilled the preliminary requirements of candidacy, are unwelcome and often rejected. Such an organization may be proper where routine is essential for the purpose in hand. As a university policy it has been administered with effective results, as every one familiar with it can testify. Yet I firmly believe that it cripples the university and holds it back from an important opportunity.

It cripples the university because it restricts the freedom of both student and teacher. Students are often compelled by the degree requirements to limit their courses to certain departments and to complete a curriculum which is made for them. They are frequently obliged to do work prescribed in connection with a course of lectures or abandon the course. They are prevented from attending certain lectures on the ground that their previous preparation does not qualify them to be auditors. They are often so occupied with the assigned work of their courses that they have no time for independent study. They pass out of the university, having been confined to a corner of it and having mist the opportunity of hearing many of its greatest men. The university has not been for them a place of intellectual

freedom. And as for the teacher, he is subject, on his part, to what the situation of the student implies. He must approve or disapprove in advance what the student proposes to study. He must teach the student, which too frequently means that he must see that the student does certain tasks, reads certain books, or writes certain papers. He must report on the standing of the students who elect his courses and that compels him to restrict their number if his reports are to be sound, or to secure an assistant to make the reports if the number is large. He must see that his department of instruction offers enough courses to keep students electing it fully occupied. He often ends by making a programme of studies and not a contribution to knowledge, because he has sacrificed his own intellectual freedom to the responsibility involved in treating every student under him as a candidate for a degree.

The university is also held back from an opportunity. The great business of public instruction and of directly shaping public opinion has either been entirely neglected by our universities or inadequately provided for thru extension departments which have rarely received unqualified approval or support from the university proper. But this great business is the university's great opportunity. The university should be a place to which resort not only those who seek degrees, but also those who seek enlightenment, encouragement, and inspiration. There should be found the youngster who needs instruction, the men and women of society, those busied with affairs, the writer, the publicist, the statesman, the men of the professions, the inquisitive wanderer, who may find in the university the best which its organized effort in pursuit of the best can afford. With such a clientele the university would be stimulated to achieve what it never can achieve simply by helping the immature to secure degrees. It would appear less to the public as a place where mysterious, recondite, ununderstandable, and suspicious things are going on; it would appear less as a place to visit on a holiday or on an excursion; it would appear more as a place of public

instruction, where ideas are fearlessly sifted, and where the ideals of democracy receive expression and illumination.

Industry and commerce need experts. The professions need trained men and women. Schools, colleges, and universities need trained teachers. But the public needs the university. It needs the university not only for culture and refinement, but far more urgently for stability in public life. The claim that public instruction should be divorced from politics, should be displaced by the claim that politics should never be divorced from public instruction. If our current political discussions really represented the spiritual life of our people, we would have to hang our heads in shame. We should have to admit that, apart from a few great national problems, the political interests of our people are largely absorbed with vice, crime, and the dominion of the boss. Every election which intimately touches civic life fills our papers with speculations as to whose man the candidate is and with discussions of white slavery, prostitution, gambling, and the saloon. It would look as if government with us were mainly a matter for the police. It would look as if the aspirant for public leadership took into the forum of public discussion, not a programme for the enlargement of human happiness, but his own individual moral reputation. We seem to have a strange faith in good men. We seem to think that a candidate for office who is not terribly worried about the evils of the world is unfit for leadership. In political discussions we seem to prefer unction and moral fervor to intelligence. Yet we know that this is not democracy; it is not self-government; it is only a political aberration.

Our government is naturally engaged in other matters besides the control of vice and crime and the minimizing of political corruption. It is engaged in promoting education, public health, better housing, easy and rapid communication, facilities for the exchange of commodities whereby both trade and the public may profit, opportunities for wholesome and profitable amusement, industry, art, and in making the city of man beautiful. Yet due to that

strange aberration which gives to political discussion a dominant and pathetic interest in the depraved, the public rarely rises to an intelligent and masterful demand that these other things be made the prime matters of political consideration. No argument is necessary to prove that these things are the blood, nerve, and muscle of a people's life. No argument is necessary to prove that their promotion should not be left to the initiative of individuals acting privately or to the private corporations founded by the benevolence of the charitable and the rich. Yet our democracy affords the spectacle of a people electing by their franchises officers to govern them, and creating out of their private means charitable corporations to keep a watchful eye on public officers and to perform public services. For this condition there have doubtless been good reasons. It has not been the result of stupidity. Yet its perpetuation is a serious public menace. It distills that most insidious of social poisons, namely, the opinion that the people generally are incompetent, untrustworthy, fickle, and unreliable. They are and will be all that if they are not confronted with important questions to discuss and given important things to do. They will be all that so long as, when they vote, they vote hopefully for an honest man instead of intelligently for social programme.

The problem which considerations like these define, is not, in my opinion, a problem for any political party, new or old, to solve. It is not a problem for a social reformer or a political theorist. It is fundamentally a problem of public instruction. It is the problem of awakening the public mind to a clear and steady perception of what is for the public good, and of providing the scientific knowledge and the scientific management indispensable for the attainment of that good. It is the problem of substituting scientific cooperation for partisan government. Many believe that such a substitution is only a utopian vision. The university believes that it is a genuine human possibility. For centuries the university has given itself to the conquests of the mind. It has dispelled much ignorance.

It has uprooted prejudice after prejudice. It has destroyed superstition after superstition. It has proved over and over again the truth of its contention that man conquers nature, and permanently insures his happiness, only thru the sustained exercise of his intelligence. It recognizes only one vice, and that is stupidity. It recognizes only one crime and that is intellectual deception. It recognizes only one form of corruption and that is the surrender of intelligence to passion. The doctrines in which it believes are not promulgated by fire and sword, nor by the murderous killings of armies, nor by the diplomacy of states, nor by patriotic appeals to purely mythical entities like the integrity of a state, the homogeneity of a people, or a geographical conception of culture. Its weapons are man's history and his science. Its armies are the penetrating forces of the mind. They fight not with man, but with nature.

I do not hesitate, therefore, to say that the problem of civilization, the problem of self-government, the problem of democracy, is ultimately the problem of the university and the public. I say this the more confidently because we are today witnessing the collapse of diplomacy and of the political control of human lives. This is not the first time that they have collapsed. This is not the first war in the world. As a matter of battles, there is nothing novel about it except its new tools of destruction. Other wars have been fought for similar reasons and with similar responsibilities on the part of those engaged in it. In its military aspects it differs from other wars mainly in its magnitude and its lack of splendor. In this latter respect the red trousers of the French are a pathetic symbol of what war has lost. Its pomp and glory have vanished. Its beauty has gone. This war appeals to the imagination only as a magnificent exhibition of engineering and mechanical skill and of organized human efficiency. Its triumphs are the triumphs of science. That is its damnation. That is the subtle and powerful reason why it has caused such a revulsion of feeling. That is why it convicts

its perpetrators not only of a moral fault, but also of stupidity and incompetence. There was a time when a war could be fought for a hundred years and yet its century be a century of remarkable human progress. Yet this war, just because it is a scientific war, arrays the whole of civilization against itself. It can not be waged unless it has supreme control of every instrument and association. Thru every civilizing enterprise it draws the pencil of the censor. The credit of the world, the machinery of transportation and commerce, the industries of men, the temples of the gods, the schools for children, the institutions of learning, the creative powers of the human spirit, all, all these it hurls into the flames.

That is why it is tearing a veil from our eyes. That is why it is making vividly clear the stupidity of the doctrine that you can protect civilization by organizing all the forces of peace so that they can be instantly mobilized for war. That is why it convicts of gross incompetence every government which allows the possibility of war to be the controlling principle in the affairs of state. Above all else, then, this war, simply because its weapons are not only guns and swords, but also, the mails, the telegraph, the railroad, the factories, the farms, the world's money, the press, the church, the school, in a word, the whole machinery of civilization efficiently and scientifically organized, this war spells the complete failure of the ideas of government which have made it possible. It is called a great war, a wicked war, a needless war, a cruel war, a barbaric war, but it is preeminently a stupid war. Its cause is not the murder of a prince, nor race hatred, nor trade rivalry, nor national jealousy, nor national ambition. Its cause is the blind, stubborn, and unintelligent adherence to ideas which have long since ceased to make for the progress and enlightenment of mankind. To protect civilization, the world does not need bigger guns, it needs bigger ideas.

So I say again, that the problem of civilization is ultimately the problem of the university and the public. It is the problem of substituting the scientific spirit for the

military and the political spirit. Centuries ago Francis Bacon dreamed of the time when the empire of man over man, thru statecraft and force, should give place to the empire of man over nature, thru morality and intelligence. For that larger empire the university professedly stands. Its work and its power qualify it for leadership. Yet the public looks at it with suspicion, as if it were the abode of the visionary and the incompetent. "He who can, does," says Bernard Shaw; "He who can't, teaches." I have tried to indicate a reason for this misconception. The university in meeting its own problems of internal solidarity has cut itself off too much from the public. It has absorbed itself too much with the work of preparing people for an occupation. This work has kept outside its doors those who do not want, or no longer need, its particular kind of preparation. The barrier should be broken down. If the university will open its doors to the public, and if the public will seek entrance there, will demand that the business of public instruction be actively and progressively undertaken, will bring its problems there for discussion and solution, will support the university liberally in this enterprise, the confident result will be a saner public opinion and a larger freedom from political superstitions.

In a recent letter to the New York *Times*, James Bryce has said: "It is only vulgar minds that mistake bigness for greatness; for greatness is of the soul, not of the body. In the judgment which history will hereafter pass upon the forty centuries of recorded progress toward civilization that now lie behind us, what are the tests it will apply to determine the true greatness of a people? Not population, not territory, not wealth, not military power; rather will history ask what examples of lofty character and unselfish devotion to honor and duty has a people given? What has it done to increase the volume of knowledge? What thoughts and what ideals of permanent value and unexhausted fertility has it bequeathed to mankind? What works has it produced in poetry, music, and other arts to be an unfailing source of enjoyment to posterity?" These

words are true. Because they are true, it is only common wisdom that every effort should be made to bring ever closer together the people that will be so judged and the one human institution consecrated to that standard of judgment. Surely it is not the idle dream of the visionary, nor the vain hope of the philosopher; it is the stern truth of history that only the school can save the state.

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II

SECONDARY SCHOOL COMPOSITION[1]

The one restriction laid upon me by the Chairman in assigning as my subject *Secondary School Composition* was this: that I "link it up with elementary work in some fashion to throw light" on both elementary and high school composition,—a request which I have interpreted to mean a brief discussion of three questions: (1) Just what is the real function of formal English composition in a pupil's development? (2) What relation should exist between elementary school composition and secondary school composition? and (3) How can the function of composition be best fulfilled thruout the school system?

The function of English composition in mental development is two-fold: primarily, it is to inculcate thought and to enforce cultivation of the habit of thinking; secondly, it is to give facility in expressing thought, action, and emotion accurately in correct, graphic English. It is to the primary function of composition, that of thought-building, that I invite your attention for a few minutes this afternoon, for it is an amazing fact that, in all that has been said and written in the last few years concerning the teaching of composition in secondary and elementary schools, comparatively little stress has been put upon this merit, intrinsic in the very nature of composition; the emphasis has been placed chiefly upon ability and facility in expression. This is perhaps not unnatural, for the mechanics of composition, i. e., theory and form, must be taught before the tongue-tied, pen-bound child can express what he actually does think or feel. On the other hand, however, it is to be remembered that he must think or feel before he has need of expression. Really the key to all expression is typified by such continual queries on the

[1] Address delivered before Boston (Mass.) Head Masters' Association.

part of writers and speakers, as "What do I think?" "What did I do?" "How do I feel?" "What is it that I am trying to say?" and the key to helpful criticism of expression is typified by such constantly recurring questions, as, "Is your composition a coherent presentation of one underlying idea?" "Have you said exactly what you mean?" "Does your statement tally with fact?" questions all that hark back immediately to the original thought.

Now just how does composition aid the pupil to think, and does he himself recognize this aid as a practical part of his intellectual equipment? At first thought it seems trite to reiterate the fact that composition is the putting together of ideas and therefore must at once call into play the mental faculties of observation, memory, judgment, and imagination. These are accepted facts, the very A B C of the psychology of the subject, and need no detailed development here. The element in the situation to be emphasized at this point is the fact that to succeed in composition, a pupil is forced to get ideas to put together—that is, he is forced willy-nilly to exercise the above-mentioned mental faculties, one or all, continually. In the language of the shops, he must have the goods before he can deliver them. To change the figure, as there is no royal road to learning so there is no chance of royal bluff in composition. Nothing shows up paucity of thought so quickly as its formal expression in composition. A case in point occurred only the other day in one of my classes engaged in a study of argument. Nothing could make the girls realize the puerility of certain statements until those statements were presented by a pupil in a formal argumentative speech when the weakness and the sterility of thought became at once apparent.

But, it may be contended, this is in no way different from what is demanded and obtained by a mastery of several other subjects, mathematics or science, for example, and, further, the adequate expression of the results of the study of such subjects is nothing more or less than an exercise in composition. All this is of course perfectly

true; it is what should make collaboration between the teachers of English and the teachers of practically any other subject such a simple matter. The advantage that a study of composition *per se* has over other subjects as a thought-producer and thought-developer lies rather (1) in the constant demand for its use in daily life, (2) in the scope of possible subject matter, and (3), and perhaps most important, in the pupil's attitude toward the work. The first item need not concern us here. So much has been said and written about the commercial, social, and professional value of composition as a study that to develop it further would be as foolish as it would be futile. The scope of possible subject matter, however, needs mention at least, because of its effects upon the child's attitude toward the study. As a source of material, the world and all that therein is is spread before the child; the beauty and sublimity of nature, the riches of land and sea, the wisdom and invention of the ages, the wonder and accomplishment of life, all lie ready at his hand. What marvel, then, that, in order to cull from this enormous mass of wealth just what he needs, the pupil very consciously observes and thinks, selects and rejects, weighs and balances, arranges and re-arranges, until he has marshalled out of chaos a single set of ideas worthy of consideration and then again consciously sets to work to express these ideas in the order and in the diction that will make the person addrest know them as they are. Briefly, he sets consciously to work to seek truth and then labors to express it with exactness and vividness. Herein in epitome is the whole creative process. It is the exercise of mental power in its highest form.

From the constant attempt at this formal creative composition, mental power at once accrues in the immediate growth of the powers of concentration and of sustained thought. The continual focusing of attention necessary to determine content and expression of thought must result in renewed ability to concentrate, just as the constant meeting of a demand for continued thought can result in

one thing only—the habit of thinking. Concomitant with this phase of mental progress, an integral part of it, tho incidental to it, goes the cultivation of the two important mental faculties, alertness and celerity of thought. Perhaps no phases of mental growth are so immediately recognized by pupils or give at once so much pleasure and profit as do these growing powers of keen observance and of quickened thinking.

As an aid to thought, then, there is in the school curriculum no more powerful agent than the study of English composition. It demands constant and varied use of the great mental faculties and imposes recognition of their application; all-embracing in subject matter, it is the clearing-house thru which the pupil clarifies and classifies ideas; stimulating to thought processes, it is the measure of concentration and of mental growth.

Does the pupil himself appreciate the practical value of composition in his training? In high school and college certainly, he assuredly does. In these days of rulers for measuring art by the inch and thought-waves by the rod, there is a tendency to forget that the ultimate test of a pupil's education lies in his application of power to the handling of the problems of every-day life. For some years it was my good fortune to have charge of the department of composition and rhetoric in a successful suburban high school. I had there absolute freedom to try out every phase of creative work. The comments of the graduates on the usefulness of the course will perhaps throw light on this discussion. Year after year boys came back from college with the terse acknowledgment, "That was a splendid course we had in composition. It taught us to think. It did more for us than any other course we ever had." Or they came back from business life with the similar comment, "That course in composition did more for me than anything that ever happened to me. It taught me to think and to tell what I think. My 'boss' wants some more boys from this school." These comments were by no means the utterance of the casual boy with talent.

They came from the able, the mediocre, the weak; they were an expression of the belief of the rank and file in the value of creative work.

A curious case of appreciation of the need of a composition course thru a knowledge of the evil results of the lack of it was brought to my attention recently by a head master who said that the graduates of his school requested that the English course be strengthened in this particular among others so that pupils could do their work in college with some degree of ease. The Harvard men who have recently complained because there are not enough composition courses now offered in Harvard College recognize their need of four years of continuous practise in thinking and in expression. This appreciation of the practical value of composition as an agent in thought development is not confined to the graduates of high schools. Many and many an undergraduate has said to me, "I never really appreciated literature till I studied composition," or "My composition work is helping me to think so that now I understand physics and mathematics better than I did." Such evidence from pupils tends to confirm me in an opinion, strengthened by some years of observation, that the failure to get at the gist of thought, together with the accompanying puerility of expression so noticeable in the mass of pupils who have not made a formal study of English composition, both oral and written, is due practically entirely to the omission of this study from the curriculum. If this opinion be correct, the school which omits this subject from its curriculum is failing in its duty to the public.

The second of the three questions for brief discussion, "What relation should exist between elementary school composition and secondary school composition?" may be readily answered. As the secondary school is complementary to the elementary school, the secondary school should take up the work where the elementary school leaves off, and go on with it. Just what the elementary schools shall accomplish is substantially a matter for them to agree

on. They know best what they can do with their equipment, with the numbers that they must handle, and with the caliber of the pupils with whom they have to deal. The problem of the elementary schools is so far-reaching, they must do what they can to equip for life so many pupils who never go to any more advanced school, that high school teachers very generally feel that the elementary school should have the right of way and freedom of choice whenever any point comes up for discussion. The working out of an adequate course for any particular set of elementary schools and the high school which receives their pupils is only a question of cooperation and adjustment which, happily, the spirit of the times is making every day more widespread.

I now come to the third division of my subject, "How can the function of composition be best fulfilled thruout the school system?" This problem resolves itself into a discussion of ways and means.

The chief hindrances to the proper accomplishment of the purposes of composition are: (1) a more or less prevalent belief in the futility of trying to concentrate on content *per se;* (2) lack of time; (3) lack of equipment.

The belief in the uselessness of attempting to emphasize content voices itself in the statement that it takes so much effort on the part of the pupil to grasp form that he has no energy left with which to cope with selection of content. Now, while it is true that thruout the entire school course, elementary and secondary alike, there are times when form must of necessity take precedence over content, the fact that form is useful only as an expression of content must never be lost sight of. The child learning to talk points to what interests him, someone names it, and finally he associates the right sound with it. The teacher writes a sentence on the board and the child is told that the combination of symbols means, "Mary likes to play." In each case there is direct association of content of thought with form of expression. Each case is an example of the fundamental method of acquiring the power to use the in-

struments of expression. What is the matter with our system of presentation, then, or with us as teachers, just where is the point of departure, that later on produces the pupil who rattles off such instruments of helpfulness in expressing thought as rules, tables, paradigms, etc., without the slightest notion of their application to thought? Will not the mastery of form, both from the standpoint of acquirement and from that of use, be hastened by constant emphasis upon content as the basis for all expression?

The second hindrance to successful emphasis of composition, lack of time, is of course in part overcome in practically all elementary schools and in some high schools by the simple expedient of making every recitation in every subject, every written paper of whatever nature demanded thruout the course an exercise in English composition. English teachers everywhere appreciate the value of this practise and request even when they do not obtain the collaboration of teachers of other subjects. It is gratifying to note, in this connection, the recent action of Radcliffe College in adopting a system that has been for some time in use, I am told, in both Harvard College and the Massachusetts Institute of Technology, of having all papers written to satisfy the demands of the various departments corrected and graded as exercises in English by members of the English department. In such secondary schools as are handicapt by shortness of time the hindrance to adequate work in composition arises frequently from overloading the curriculum. Either too much stress is given to one or two subjects, as in some special schools, such as industrial schools, etc., or too many subjects are forced upon the pupil at one time. No pupil, for example, can do satisfactory work all at once in six heavy subjects, like Latin, Greek, French, English, history, and mathematics, each one of which properly handled demands hours of careful preparation. Something must be slighted, and English, to say nothing of composition, sorrowful to relate, is too often the sufferer! Such a program as this, of course, demands reorganization of the curriculum. The most

successful high schools are getting their results from an average of four subjects requiring serious and formal preparation, supplemented by some subject or possibly two subjects that demand either no preparation or very little, like music, elocution, etc. The problem of lack of time, then, can be remedied both by a use of expedients for emphasizing composition work and by alteration and re-organization of courses of study.

The third hindrance to a proper exercise of the function of composition, lack of equipment, displays itself in two directions: (1) the incompetence of teachers; (2) the scarcity of funds with which to make improvements.

The first bugbear raised whenever the teaching of composition is mentioned is the time-worn cry, "Only the exceptional teacher can do it." The exceptional person in this world in any walk of life is rare. If society waited for the advent of exceptional people, no reform would ever take place, no advance would ever be made. At best, the most such people can do is to blaze the way. In the long run it is the best effort in season and out of season of the ordinary individual that accomplishes the results that abide. It is true that to accomplish any uniform teaching of composition there must be a certain fearlessness of insistence against too great conservatism and there ought to be some system of helpful supervision and direction on the part of constituted authority, such as obtains, for example, in the schools of Newton (Mass.) and doubtless of many other places today, but the results of the action of these forces is bound to be the bringing of teachers, sometimes of extremely ordinary ability, to the level of a really big average of efficiency.

The danger to success lies rather in the unwillingness of teachers to do this work because of little free time and the drudgery entailed by the size of their classes. In the teaching of English composition more perhaps than in the teaching of any other subject does a teacher's need to replenish her stock of knowledge, of nervous energy, of power to give inspiration manifest itself. What can be done to give the

teacher time for this re-stocking and at the same time ensure the adequate presentation of composition? Here comes in the problem of expense. If the tax-payers would foot the bills it would be a simple matter to build enough schoolhouses and engage enough teachers to reduce all classes to fifteen or twenty in number and leave plenty of free time for correction, conference, and self-improvement. Unfortunately, however, tax-payers are not as yet sufficiently enlightened for this, and, until they become so, some means must be found to serve as an approach to such a Utopian condition. Aside from the hiring of persons to correct themes under the supervision of the regular instructors in English, the one way out, a way to which a considerable number of schools have already been driven, is the establishment of composition as a separate course under the direction of separate teachers. Quite apart from the merits of the question as to whether composition should wisely be taught by a teacher who has the same pupils also in literature, here is a feasible way to solve some of the difficulties. At comparatively little expense enough teachers to try the experiment at least can be hired. In these days it is not difficult for a nominal sum to get enthusiastic young women able and willing to teach composition. Such a course is valuable even if only one hour a week is allotted to it tho preferably two hours per week should be allowed during the first two years of the high school course. One of the most successful courses of this sort that I happen to know of was so arranged that the composition teacher was assigned only thirteen periods of actual recitation per week. The remainder of her time in the school was at her disposal for correction and conference. In a schedule of twenty-five hours per week, five, sometimes six, absolutely free periods per week were always allowed her, and, while the remainder of her time was spent ostensibly in charge of study classes, matters were in such excellent running order and the discipline of the school was so good that she could always use such periods for work. The adjustment of such a course to

local needs and conditions is a matter merely of time and attention on the part of those operating it. That such courses are now working satisfactorily in some schools is matter of evidence. May not the establishment of such a course solve in many schools at least some of the difficulties that stand in the way of adequate work in composition?

Any real hindrances to a proper fulfillment of the function of composition in the school curriculum, then, are capable of final elimination and of more or less immediate amelioration. Why then should not this subject, in itself and in its relation to other subjects so essential in the development of logical thought and accurate expression, be at once accorded in all schools recognition as a course worthy of scientific treatment in itself, if not always by itself?

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III

THE TEACHING OF HISTORY IN THE ELEMENTARY SCHOOL[1]

The discussion of the subject of history in the grammar grades is really part of the larger question of history in the elementary school; and there are two general views that may be taken of the matter.

The first view may be called the older way of looking at the problem; and because it is older it is quite deeply rooted in practise, tho it is not so firmly established as it was. This view proceeds along the notion that "what the child needs is to have the imagination quickened, and the memory stored with incidents and associations. It is not so necessary that there should be any definite plan or order in the acquisition of these interesting stories, great names, and important events. The child merely needs to have associations and memories of these; their arrangement will come later." Not only is this view the traditional one, it is what may be termed the incidental view; for in practise it makes history not a subject but only an incident in connection with work in reading and language, and without any attempt at organization or system from the viewpoint of history. There is no course in history as such, unless the work of the last two grades may be so construed. In these, there is a study of our country, which is an introduction to some of the facts of United States history and a recital of them. From my observation this work can not be considered an acquaintance with these facts or an understanding of them; but it is rather a matter of recollecting them as presented in a text. The work is abstract and formal, not concrete and vital or related to life.

[1] An address delivered at the Wisconsin State Teachers' Association, Milwaukee, November 6, 1914.

The second view may be designated as the newer way of looking at the matter; and because it is newer it is struggling yet for more of a place in our public schools, tho it is getting a firmer footing with advancing years; and it will get a fuller recognition as some of the problems it raises are more definitely agreed upon by its advocates. This view starts from the same premise that the other one does, "that what the child needs is to have his imagination quickened," but instead of allowing this process to be a matter of pleasurable and interesting experience merely, it proceeds along the notion that the work should be directed to some specific end. In this view history becomes not an incident to reading and language but a feature of work thru all the grades. It means a reasoned-out course which is systematized, articulated, and progressive. It is a view which finds its basis in the psychological development of the race and of the individual, and its justification in its relation to the fundamental aim of education and the practical needs of life. It is a view which would make history work informing, interpretative, and educative in the true meaning of these terms.

It is apparent from these statements that the newer way of looking at the subject of history in the grades is conceived to be the better way; and this is my opinion, not because the view is newer, but because it is one which recognizes, first, the value of history as a study in general, and second, its specific relation to the fundamental function of the public school. That this position may be made clear a few words of explanation are needed on these points.

Concerning the first, or the value of history as a study, so much has been written and so generally agreed upon that a mere statement is deemed sufficient. The study of history when intelligently and properly prosecuted has a definite mental, moral, social, cultural, and practical value which does not need to be elaborated here. As to the second, or the general function of the public school and the place of history in connection with this function, something more than a mere statement is needed. Considered his-

torically, the modern public school came into being because the people began to feel the need of education to give them a place in life and society. Before this time, when the masses were serfs or worse, education such as it was, belonged to the classes,—royalty, nobility, knights, clergy, money-lenders and others. This advantage gave them a station in life which was an exclusive and aristocratic one. But this old order of society could not stand against the decline of feudalism, the development of commerce, the growth of free cities and the rise of the "third estate," which finally opened the doors of life and opportunity to a place for the people. They demanded and have been getting ever since, a constantly widening, deepening, and varying education such as fits them to occupy the place in life and society that is theirs today in this modern world. It is the supreme business of the public school to furnish the people with that education which will give them a proper place in life; hence the two-fold function of the public school: first, to serve the individual, and second, to serve the state or society. Thus the public school today must open the door of opportunity and life, and keep it open, to the child, so that he may learn how to live and how to grow; that he may come to know himself and the world, and how to use himself and eventually to develop all his powers so as to make the most out of himself and to give the best he can to society and the times in which he lives. This brings new and difficult problems and varied attempts at solution. As times change, people's needs change and education must change to suit the needs of the people. As life becomes more complex and human interests become more varied, the public school becomes more burdened in its work; and tho its function is unchanged its organization and methods may need to be evolutionized or perhaps revolutionized to enable it to discharge its duty, and to fulfill its function. Hence the foregleam which we have of the future, wherein that education which is to be common to all will be more and more confined to the elementary public school or grades, because such a large proportion

of the mass never goes into higher schools to stay any length of time; while that differentiation and diversification which is suited to the needs not of the whole mass but of sections of the mass will become more and more the dominant characteristic of the secondary public schools; and this because there are today so many classes, with different needs, among the masses. Instead, therefore, of the high schools commonly having a standardized, uniform course, which is primarily preparatory for entrance to college and to university, they will have courses suited to the various immediate life-needs of their constituents whose schooling can not or will not be pursued further.

Now what is the place which a study of history occupies in its relation to this conception of the function of the public school, particularly the elementary school? The purpose of history teaching in the grades is to introduce the boys and girls into the human world around them and behind them. From birth they have begun to sense the physical or material world in which they live, and each new experience or point of contact with it has been adding to their notion of it and of their place in it. In time they have a mass of impression, information, or experience,—call it what you will—which is a foundation or apperceptive basis upon which to build and establish a knowledge of the physical or material world in which they live. Such understanding, however, is essentially the work of instruction by means of which experience becomes intelligible. Thus children come not merely to experience day and night, rain and snow, summer and winter, and other natural phenomena, but to comprehend these facts of their physical environment. They have "found" themselves, as it were, and thereafter they are able to make an intelligent ordering of their life in its relation to this material sphere of their existence.

But this physical world is only one world into which we are born and in which we live. The other world is in some ways the bigger world and the more important one. This world is the human world or society that envelops

us as does the atmosphere of the natural world, but which also reaches back over the stretch of past time so as to touch everything and to hold in its embrace the priceless treasure of the accumulated experience of human life and activity. This world our children must come to know in a way similar to that of knowing the physical world about them, and for the same purpose; for their life-activity today is more a matter of social relationship, dependence, and adjustment than it is of natural, physical environment.

The child begins his knowledge of this human world in the same way in which he does that of the physical. From birth he experiences certain associations and has certain points of contact with the human world immediately surrounding him. These experiences accumulate, but that accumulation is no more real knowledge than is the mass of experience he has with the physical world. It is, however, the starting point of his knowledge of the human world, and in the same way. Thru instruction he learns to comprehend his experience and to interpret his life so as to "find" himself and to understand his existence in its relation to his human surroundings. The thousand and one facts of his daily life which he experiences are devoid of any other than a routine meaning to him until he comes to know how and why things are as they are; and this knowledge he can secure only thru an adequate study of history. Hence if he is to make the most out of himself and to give the best he can to society he must get an intelligent acquaintance with the human world of which he is a part, and learn as much as possible about what it is, how it came to be, his place in it, and his duty toward it.

Summarizing what has been said before passing on to the treatment of the rest of the subject, emphasis has been placed upon these things as fundamentals: (1) History study in the grammar grades must be discust as a part of the larger question of history in the elementary school. (2) The function of the public school is to give the mass of the people a station in life for their own benefit and for the good of the state. (3) The elementary school is the

school where that education which needs to be common to all must be secured. (4) History has special value not only as a study in itself but also as related to this function of the public school; and (5) To secure this value fully there must be a definitely planned course in history thruout the grades.

What this course should be must now claim attention. Considerable pains have been taken to find out what the course now is in different places, and an examination has been made of the practise as it is in many of the cities of Wisconsin, in New York City and Chicago, and as outlined by the state departments of education in several of our states. It is not necessary or feasible to give here the data thus gathered, but it is quite variable and interesting. The cities usually have courses of their own constructed more or less along the lines of the older view mentioned in the beginning of this address; while the state manuals conform more or less closely to the recommendations in the report of the Committee of Eight of the American Historical Association, which represents the newer view of history in the grades and is gradually making its way into the elementary schools. Tho the course outlined by this committee is most excellent, there are some modifications which might be recommended both in the primary and the upper grades. But as we are concerned here only with the grammar grades, suggestions will be confined to them as follows:

5th Grade, the Ancient Orient, and Greece and Rome.

6th Grade, Medieval life and times to the discovery of America.

7th Grade, the early Modern Age, European expansion, and American colonial life.

8th Grade, the new nation in the New World or our own country and its history since 1783. Also, very briefly, the new Europe, the new Africa, and the new Orient.

Such a course, on the face of it, may seem altogether too difficult for pupils of ten or eleven to fourteen or fifteen years of age; and no doubt it can easily be made so; but it

is not inherently so. On the other hand, it can be brought entirely within the ability of pupils of these ages, and it would be most valuable to them.

In carrying out such a scheme the objects to be achieved and the purposes to be realized are important. First, no attempt should be made to fill the minds of the pupils with meaningless statements of facts and dates, either systematically arranged and tabulated, or disconnected and unassociated. That is not to be considered history teaching anywhere. The memory may need to be trained, but it is the understanding that is to be taught. Hence every effort should be made to give the boys and girls vivid pictures and abiding impressions of persons, places, deeds, ideas, etc., that will reveal to them the human world and life of other times, not standing alone and apart from life today but intimately connected with it by comparison and contrast. This calls for the constructive imagination and the developed historical sense, on the part of the teacher, but these are necessary in order that the children may be transported back to other times and places so as really to see and feel as the people they are studying about saw and felt. Thus the experience and feeling of the past may become a part of their experience and feeling, and not a matter of memory simply.

Second, the pupils should get a notion of development and progress in the human world of which they are a part. Their own span of life is as yet too limited for them to have experienced much of this in comparison with what will come later, yet they have a basis in this experience and observation for understanding what may be termed the fundamental laws of history, which are: (1) The law of change or movement, for the human world does not stand still; (2) the law of unity, for notwithstanding the ceaseless change in life, human events are linked together; (3) the law of development, for human progress is a matter of growth from age to age; and (4) the law of intelligible cause, for human relationships and achievements are not accidental but spring from active forces both physical and

spiritual. These are big facts of history, yet essentially they are simple ones, and children may not only be made to realize them, but they may be delightfully entertained by them and intensely interested in them; and they should have a consciousness of these features of the human world they are studying because they are so vital.

Third, the children should be imbued with the fact that history is a present reality and not merely a matter of past times. They should be made to see that history is humanity in action; it is the things that men do, or the life story of a people as seen in their achievements and creations. It includes not merely the wars and conquests, politics and government of a people, but their learning and literature, their art and architecture, their manners, customs and habits, their industries, their religion, their home life, their amusements, and all the rest of their activities. Therefore, the children should know that all these things which they see and experience in the present are the history of their time to be preserved for after-generations as these things of the past have been preserved for us of today. Further, all these things of the present time are the outgrowth of the past, and not only can be traced down from the past, but are not to be really comprehended until they are thus explained. Here the pupils may find the solid evidence of historic unity in human affairs, and the teacher has abundant illustration for impressing upon the children's minds the notion of the fundamental laws of history before mentioned. Also this is the means by which current affairs are to be presented and studied in their proper setting and associations. All this can be acccomplished in a way that is neither too difficult for the ability of young people nor beyond their comprehension.

Fourth, the children must get a general understanding and appreciation of our own country's history. They ought to see our country's existence come about in the beginning as a feature in general human progress; and they ought to know in a very concrete and definite way what its distinguishing characteristics are in this respect. They should

feel the difficulties and trials experienced by our forefathers in establishing their homes in the new world and in laying the foundations of this new nation. They should see how the descendants of these first settlers and others who have kept coming from Europe ever since, have increased in numbers, spread over the territory of the United States, developed its resources, and grown into the great nation of today with its wonderfully complex life and activity. They should also see what all this means to them and what are some of the fundamental duties devolving upon them as they become the active citizens of tomorrow.

And finally, the pupils should learn that while we have been developing in our own marvellous way, the other countries of the world have kept on making history too; and that humanity is getting more and more intimately associated all the time, so that much of what happens in our country concerns other peoples, and *vice versa*.

Tho all these objects and purposes seem formidable as we think of children just entering their teens, it is because in describing them, it has been necessary to speak as an adult addressing adults; and because as teachers we need to become saturated with ideals of accomplishment in order to be masters of our task. In working with the children, however, we would not make the mistake of trying to give them an adult understanding of these things but would constantly keep in mind the child's power of comprehension, and try only to get them started properly on the road to a correct adult understanding later. Therefore the facts that we would select for this work would be only those of child-mind caliber.

Now what is to be said of method? The conception entertained of this is, that method is something that results from a desire for achievement and develops with the effort at accomplishment of a given end. Hence it is a matter in which no arbitrary directions can be given, for it is specific and individual. However, there are some helpful suggestions that can be given as ideals or principles of practise. These may be regarded as psychological

or pedagogical laws, and are: First, the fundamental law of impression, which is, that impression completes itself in expression. Give the children a chance to tell everything they see or read or hear about the work they are doing or the things they are studying. Have them tell what they learn, over and over again, and come to it from new approaches and various angles so that they will know it from all sides, and their impressions become deep and permanent. This is drill, but it is not mechanical drill; instead it is intelligent drill,—not a matter of dates, or names, or lists of facts and events, but outpourings of mental pictures or images, impressions, comprehensions, contrasts and comparisons.

Second, the fundamental law of study, which is that of interest begetting effort and activity for achievement. Give the children a task to do,—something definite to find out, a question to answer, a problem to solve, a topic to explain, a scene to describe or picture, a story to tell or write, an inference to draw, an observation to make, or an experience to relate, an outline to prepare, and other things of specific and like nature. Let these be within their ability and comprehension and they will be not only interested but also active in learning. In this work guide and direct the pupils in their efforts at the association, organization, interpretation, and presentation of historical experience, so that they will gain constantly in mental power and insight.

Third, the fundamental law of utility, which is the concrete application of knowledge to new situations and experiences. Teach the children to glean from their study, and to build up in their mind, principles or precepts which they may use in explaining or judging conduct as it reveals itself in the successive events they study, also as it may be evidenced in current happenings and in the future possibilities or probabilities of things. This will keep them on the *qui vive*, and train them in that art of all arts, the practical judgment and insight into human affairs which is so necessary today and in time to come if they

would adjust themselves easily and safely to the currents and eddies and whirlpools of the modern human world.

If the children of the grades can be taught these fundamental things of life, and they can be, it is their due and our obligation; for the elementary school is the great common school where the masses are to get their schooling for life.

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IV

EDUCATION FOR THE CONTROL AND ENJOYMENT OF WEALTH

In the discussion of industrial education there have naturally been many viewpoints and many varying theories. One man regards industrial education as all-important and believes that the so-called cultural education ought to be kept secondary or ought even to be acquired indirectly thru the agency of industrial subjects. Another believes that the best training, including training for industrial life, is to be found in the traditional subjects and methods. A third has in mind the product of labor; the laborer must have education for efficiency in order that the product may be perfected and increased. Still another has in mind the wage earners themselves, who constitute an immense majority of the patrons of the public schools; he regards their interests as the chief consideration in determining educational policy. This is the point of view of the present article.

But the question arises, what are the interests of the wage earners to be served by industrial education? The viewpoint of the labor group, which certainly is not to be ignored, is not so much that of industrial efficiency as that of industrial democracy. They believe that individual efficiency as producers ought to be a secondary aim. They hold that a responsible sharing of the control of industry and a just sharing of its benefits ought to be the primary aim of industrial education; because, in the first place, these aims are in themselves of chief importance, and in the second place, they will do more than anything else to promote efficiency in the narrower sense. A very large proportion of strikes is on the question of the right to organize and by means of organization to secure a voice in the control of the great industries. In a large industry, the destiny

of the laborer is fashioned by the industry, for in its operation he as an individual is but an atom. His hope is organization, and, thru organization, a share in the control of the great industries, which are at present for the most part despotically controlled by the legal owners. The wage earners do not ask for despotic control, nor even for a half share. The fact that most of the refusals to arbitrate labor disputes and few of the efforts to initiate such arbitration come from employers indicates that the labor group is far more willing than the employing group to recognize the rights of the general public in the joint control of the great industries.[1]

The world-wide movement in the labor group for industrial democracy merits general support for three reasons. It is fundamentally just and righteous in itself. It is one of the most potent means for weakening the present grip of the powerful capitalists on organized society. And opposition, or even indifference to the movement may result in dangerous excesses.

Industrial democracy, then, ought to be the aim of industrial education. But industrial democracy means much or little in so far as it promotes or fails to promote the democracy of wealth. So the primary aim of industrial education ought to be to promote a responsible sharing of the control of wealth and a larger sharing of its benefits. The viewpoint of the labor group with respect to their own education is essentially right.

There has been such conflict of aims and methods that in the resulting babel of tongues and strife of creeds there has seemed little hope for anything but continued confusion. But these conflicts with their attendant confusion have resulted from profound social changes. An understanding of these will help us in making the needed adaptations in our educational work. Every one is more or less familiar with these social changes, but brief reference to them in this connection ought not to be out of place.

[1] "The world over, where these boards [of arbitration] exist, their records show that in a large majority of cases it is the employers that refuse arbitration."—Adams and Sumner, *Labor Problems*, p. 209.

In the first place, education has only recently become democratic. Its origin was aristocratic. The curriculum, the methods, the aims, the ideals were all adapted to an aristocratically organized society. In the extension of education to the industrial classes, minor adjustments were naturally made; but in the main, the system was simply transferred to the public schools when these grew up. It must be remembered, also, that the aristocracy themselves are mightily changed. They survived the terrific storms of the late eighteenth and early nineteenth centuries, but they can never again be the same. Their educational system took shape in the older periods, under conditions foreign to the democratic ideals of today. The advantages of wealth and an aristocratically organized society gave them political control, and their learning was mainly an ornament, a plaything, a badge of leisure, a training for observing the conventionalities of life, a passport to the culture of court life and polite society. And yet the education which they patronized had back of it centuries of refinements of method and technique; and it could therefore be more readily transferred to the developing public schools than it could be displaced by new and hitherto unorganized elements. The result was natural—the old wine was put into the new bottles. We are realizing today that new wine is needed; that the aims, ideals and needs of the labor group, which furnishes most of the patronage of the public schools, are so radically different from those of the society which education was first intended to serve that radical changes are justifiable and necessary.

A second changed condition of profound educational meaning is to be found in the transfer of manufacturing from the home to the factory and from the farm to the city. This is so well known that every one is familiar with the change as a mere fact, but its educational significance is not always recognized. During the early periods of public education, there was less ferment in social life, and the demands made upon the school were more simple. The old industrial processes, such as carpentry, harvesting,

milling, rearing of animals, soap-making, canning, preserving, spinning, and garment-making, were carried on in every home and on every farm and were in themselves educative. Direct schooling was relatively less needed then than now, and the need was proportionately greater for cultural than for practical education. Even the professional classes had less need for economic training, because industrial organization was simpler, and because pedantic learning and oratory of classical models went much farther then than at present. The complex factory system, with the growth of cities and minute specialization and division of labor and weakening of the educational forces of the home, has brought about such a profound change that educational readjustment has been inevitable.

A third condition which is in part responsible for educational unrest is to be found in the dangers which threaten democracy. These dangers are ignorance and passion on the one hand, and on the other hand the power of centralized wealth.

Intrinsically, this is no new condition; these dangers have ever been among the chief enemies of progress toward democracy. But under the present system of industry they have assumed new forms and perhaps acquired new strength; or increasing enlightenment has made us more clearly conscious of them.

As has often been pointed out, the danger to democracy during the early period of our history was more purely political—the danger of engrafting despotic government upon American society, and thereby stifling initiative and imperiling the freedom of the individual. The danger is now to be found rather in the abuse of personal freedom. Gigantic corporations have entrenched themselves behind the bulwarks of individual rights until they have become so powerful as to control or to defy that power which is supposed to guarantee individual rights to all. Wholesale immigration has on the one hand increased the ignorance and passion and social ferment, and on the other hand

strengthened the power of corporate wealth in controlling labor, natural resources and politics.

It is needless to dwell upon the frequency of strikes and lockouts; the resort to violence by labor and to criminal abuse of power and disregard of labor's rights by capital; and the frightful prostitution of wealth and power at the top of the economic-social scale and the appalling degradation and poverty below. These conditions may be no worse than during past periods, or even not so bad as formerly. But they are in direct opposition to democracy, and the business of a democracy is, therefore, to overcome them. It may be that the evil of such conditions appears greater now than formerly because men formerly took such things for granted or were even unconscious of the actual state of society. And herein is the large hope of the present. Men are becoming conscious of the fact that society is needlessly "debauched by wealth and brutalized by want;" and instead of lamenting hopelessly or accepting conditions as the decrees of fate, they are consciously and cooperatively seeking a remedy. One of the remedies is public education.

But we have seen that education was at first essentially a transfer of the content, method and ideals of the old aristocratic education, and that this transfer was made under a radically different system of industry and social life, and when the dangers threatening democracy were of a different form if not of a different kind. In the light of these facts, educational changes are entirely natural. The response of the schools to changed social conditions and needs has resulted, as previously stated, in much confusion and uncertainty. But amid the confusion and uncertainty, a few tendencies stand out prominently as the essential phases of the process of adjustment.

I. One of these tendencies is the development of specific vocational subjects and methods. Agriculture, for example, is now required by law to be taught in many of the states, and it is being introduced thruout the country in the rural schools and even in the town schools. But it is a new subject, and is, therefore, still in process of organization; and

it is so absorbed into the school system as to make it impossible to express mathematically its relative importance. The same is true of other vocational subjects and of industrial education in general.

But there is unquestionably a very general interest in the reorganization, or at least the modification of education in harmony with industrial needs and conditions. This interest is by no means confined to the ordinary types of schools, but is expressing itself in all sorts of private schools, night schools, vacation and continuation schools, and correspondence work. This interest and its modifying influence on the schools will doubtless continue; and judgment as to the value of direct instruction in manual and vocational subjects should take into account the fact that these new subjects, because they are new, have not as yet the advantage of the old subjects in the matter of thoro organization and method. Until they have been organized and adapted and effective methods of teaching them have been worked out, their full value can not be determined.

In the work of experimenting with and organizing these comparatively new subjects, a great field is open to private schools and the education departments of universities. Until the preliminary work has been accomplished, the public schools find it difficult to utilize these subjects to best advantage; for they have their hands full in meeting the pressing needs of the children who crowd into them. Instead of blazing new paths and building new highways, they are forced by the load they bear to keep in the old roads, even tho they are worn with ruts. The value of non-governmental initiative is illustrated by the Public School of Trades in Milwaukee. This school was established by the Merchants and Manufacturers' Association of Milwaukee, and after the value of the school had been demonstrated, the city voted to take charge of it and continue the work as a public institution.

But in spite of their burdens, the public schools are doing much to solve the problems arising out of industrial needs. Agriculture and domestic arts, especially the former, are

quite commonly taught in rural and village schools. In the cities, various plans are being tried. In some places, as in Massachusetts, there is a systematic plan for vocational guidance. In many cities, the schools are securing the co-operation of industrial plants, by which means students are allowed to attend school a part of the time, and during the rest of the time work for wages and acquire industrial training. An interesting departure has been made in the Indianapolis schools, in which semi-industrial or pre-vocational training is given in the seventh and eighth grades.[2]

In the Indianapolis experiment, the "theory" part of the program includes English (composition, reading, spelling and grammar), mathematics, geography, history and civics, hygiene, penmanship and music. The "practise" part, for boys, includes shop work (bench work and mechanical drawing and designing), printing, and iron work; for girls, cooking, housekeeping, sewing, cleaning and dyeing of textiles, weaving, and mechanical drawing and designing. Only a little more time is given to the "theory" part than to "practise." The latter requires machinery and equipment, and better paid teachers than those required to teach only the book courses. But the results seem to justify the expense, especially in the case of those children who do not take kindly to mere book learning.

And many of these children who resist the demands of the teacher have great native vigor, and perchance for this very reason find it difficult to reconcile themselves to what is often the repressive monotony of books. Semi-industrial education is developing in some cases to serve the needs of just such a type—pupils whose minds do not react readily "by dealing with the abstract and the symbol, but demand the reality," and whose vitality is such that it demands vigorous expression. Such education is succeeding in the case of those whose uncommon vigor resists the repression of conventional book learning. This fact ought to stimulate school authorities to increase by the same sort

[2] For an interesting report on this phase of the Indianapolis schools, see the Eleventh Yearbook of the National Society for the Study of Education.

of education the vitality of those students who are too weak or too docile to resist the repression of too much book learning.

It is often urged that such subjects as those included in the "practise" part of the program of the Indianapolis schools have no place in the grades; that independent high schools or trade schools, with proper equipment, devoted entirely to vocational training, may have a proper place, but that to mix the two in the same school will result in superficiality fatal to both. They contend that this is a day of specialization, and that those who want industrial training should go either direct to industry or else to a full-fledged industrial school. The danger of superficiality is a real one, and escape from it will require an intelligent increase of expenditure for equipment and for teachers. But the fact remains that the majority of students drop out of school in the lower grades with little or no preparation for their life work; and public education, in holding aloft the ideal of "culture" and holding its skirts aloof from the "base" things of industry, is in some measure responsible for such a condition.

The objection to vocational subjects in the elementary schools is not without reason, but the fact must be recognized that comparatively few go beyond the grades. There are many who believe that in order to bridge the gap, the secondary course ought to be extended downward. Formal elementary education, involving the same subjects for all students, might end, say, about the twelfth year instead of about the fourteenth as now, and secondary education, beginning about the twelfth year, could be differentiated to meet more concretely the need for vocational preparation. Those expecting to enter college and the professional schools could be allowed to take a certain amount of work intended for them only, and similar provision should be made for those who are to enter commerce, the trades, etc. But here a serious question arises. Is it wise, on the one hand, to force upon the child of twelve a choice in the matter of semi-vocational courses, or, on the other hand, to make

such a choice for him? The plan involves difficulties, but at least it has the merit of attempting to solve one of our chief problems—that of keeping children in school during perhaps the most vital period of their lives, and of giving them appropriate training. The courses taught would need to be definite and dynamic so as to appeal to the normal energies of the child of from twelve to sixteen; but they would need to contain elements common to as many vocations as possible, so as not too greatly to restrict the pupil's ideas and field of choice.

The secondary course may thus be extended downward, or the elementary course may be differentiated and made dynamic and complete in itself. The means is immaterial, provided the end is attained. That end is to keep children from twelve to at least sixteen in school and to give them dynamic and pre-vocational training suited to their critical period of life and the conditions of industrial life.

II. Much has been done and yet needs to be done in the development of direct vocational education. But no less important is the adjustment of the older methods and subjects so as to harmonize them with the new ideal. In so far as semi-vocational subjects are introduced into the public schools, they should emphasize not only the how but the why, the idea, the thought-force, the spirit and ideals of industrial society. And in so far as the so-called traditional subjects are retained, they should be measured not by a sentimental standard or a regard for their past usefulness, but rather by their value in helping the student to live a sane, happy, efficient life under conditions that prevail today.

Not the least important of the elements of an efficient life is the much-talked-of economic efficiency. But economic efficiency means more than ability to make a living, more than ability to be an effective producer. It involves ability to share in the constant readjustment of industrial society in the effort to harmonize it with the ideals of democracy. Such efficiency depends vitally upon the public schools; and direct vocational subjects, if allowed to predominate, tend to an over-emphasis on the narrower view of efficiency.

But the cultural or traditional subjects must be socialized; their content, methods, and ideals must be given an economic emphasis. History, for instance, must be reorganized so as to give the pupil a better knowledge of industrial life during the past in order to foster an intelligent interest in public questions and policies of the present, and in those tendencies by which all classes are beginning to share more justly in the control and in the profits and benefits of industry. Without some elementary knowledge of the factory system, transportation, monopolies, strikes, and labor organizations, the would-be citizen must for the most part vote ignorantly.

Underlying all the subject matter and methods and ideals of the school should be the purpose, first, to inspire every pupil with an eagerness to take up some specific life work; and second, to enable him to pursue this life work efficiently in its larger sense, including not only its financial compensation but also its relations to the problems and democratic ideals of industry. The relative value of vocational or semi-vocational courses and of the more strictly cultural subjects is a problem yet to be worked out in the light of experiment and of varying conditions. In the meantime, it is well to remember that "true instruction is that which takes most any material and thru its skillful representation and working over makes specific individuals want to express themselves in particular employments."

III. On the one hand, the old cultural subjects are being made to minister to the demands of industrial education; and on the other hand, industrial education is being utilized for its culture values.

One of the things education ought to do is to cause the pupil to think, to give him ideas, or rather to put him in the way of getting and using ideas. This power is one of the essential elements of culture. It was this more than anything else which has given to the Greeks the name of the most cultured race of history.

Industrial education is being utilized for this very purpose. For example, the farmer boy who has the right sort

of training in agriculture will perpetually be thinking about the characteristics of soils and plants and animals and the thousand and one interesting and little-known problems connected with his life. It will also open up to him the related fields of physics, chemistry, biology, geology, and economics, and will lead to a vital and ever-growing interest. It will lay a sure foundation for the thought mansion of culture. It will prepare the soil and furnish the seeds for an abundant yield of culture ideas. And when the thought element of culture has its basis in industrial education, it has the advantage of perpetual source and inspiration in one's daily life and work.

Another essential element of culture is esthetic taste, idealism, appreciation of the beautiful.

But surely we are not to look for the beautiful in the dust and grind of the factory, in the routine of bank or store, in the confusion of conflicting interests, or even in the toilsome life on the farm and in the home. Education ought to teach us to look away from these things and to escape the confusion and weariness and ugliness of industry by cultivating our interest in literature, music, art, social pleasures.

This philosophy is often taught, and under some conditions it seems the only way to cultivate love for the beautiful. Certainly there is no condition which can serve as a substitute for the esthetic value of such things as literature, art, music, and social pleasures. But the notion that one's life work, even tho the commonest sort of toil, prevents appreciation of the beautiful, or is even itself devoid of esthetic value, ought always to be discouraged. The barrenness of work among the industrial classes is too often due in part to disagreeable surroundings and inadequate reward and to the monotonous and wearying nature of the task; but it is nearly always due in part to the attitude toward the work, or to ignorance of the best methods and of the dignity and value of the work and its relation to the industrial world as a whole.

Herein is a fertile field for industrial education. It ought

to give a comprehensive and so far as possible a practical knowledge of the particular industry in which one is to engage, together with its relations to other industries; and it ought to arouse a wholesome interest in and attitude toward one's work. If it does no more than this, it will have eliminated much of the ugliness and discord and seeming littleness of work, even if it fails to give to toil a positive beauty and joy. The chief joys of living ought to be the joys of work.

A third element of the culture ideal is a comprehensive one, and is inadequately exprest by the trite term morality. It involves a sane, balanced, rounded personality; the moderation and harmony of the Greek, the sturdiness and integrity of the Teuton, and the blitheness and joy of the Italian.

Such a cultured personality is impossible under certain conditions. It is impossible alike to a man who engages in his work without enough efficiency to make it a success, and to the man whose attitude towards his work is that of constraint or dislike or dissatisfaction. One of the chief criticisms of public education has been that it has not given practical efficiency for life's work, and that it has even tended to strengthen the spirit of disdain for common toil—for those vocations which must be the life work of at least nine-tenths of us.

Industrial education, if it stands for anything, stands for practical efficiency and for a proper attitude toward one's life work, without which the moderation, the integrity, and the joy of culture are impossible. The idea is gaining ground that the producer and not the parasite is the man of culture. A recent text on agriculture contains the following sentiments: "It may even be granted yet that the doing of one's share is the biggest and best part of morality." And again: "That man is happiest who makes his own living and at the same time finds the biggest part of his joy in the things from which that living comes." The doing of one's share with joy in the doing—this may almost be said to be the biggest and best part of culture. The old

idea that culture is a monopoly enjoyed only by "gentlemen of leisure" with heads full of Latin and Greek and classic verse and with hands unstained by toil is an idea that died a hard but certain death, let us hope beyond all chance of resurrection. Nowadays we must combat another danger—the idea that those who have wealth and use it extravagantly are cultured. Such people are often the worst enemies of genuine culture.

Another condition which tends to destroy the culture ideal of moderation, integrity, and joy is to be found in the instability and injustice of industry as now operated. Between 1881 and 1905 there were 36,757 strikes in the United States, resulting in 8,703,824 men being out of work, and 1,546 lockouts, with 825,610 men thrown out of work.[3] This is but a numerical symptom of incalculable unrest and disturbance. The lobby revelations involving the National Association of Manufacturers give added evidence of long years of secret, subtle and dangerous hostility to the labor group. The dynamiting cases culminating at Los Angeles, tho unjustifiable, were not without portentious causes. The prevailing injustice so obvious in the centering of the profits and the domination of industry in the hands of a few men is made the more dangerous by the prevailing ignorance of the causes of this injustice and its remedy. Such conditions of injustice and instability are opposed to any genuine and general culture based upon the qualities of moderation, integrity, and joy of living and working.

Now the chief aim of industrial education in the broader sense is to develop among all classes such qualities as will lead to the democratizing of industry and the triumph of democracy in its battle, on the one hand, with ignorance and passion and, on the other hand, with centralized wealth. Only with this industrial change and triumph can there be the possibility of a general and genuine culture.

No matter, then, from what standpoint we approach the culture ideal, we find that industrial education may be made its ally and friend.

[3] *Statistical Abstract*, 1912, p. 288.

IV. The development of vocational training, the socialization of the entire curriculum, the utilization of the culture values of industrial education—these are all important tendencies. But the value of each of them in any far-reaching influence for democracy, either economic or political, is dependent upon a fourth tendency—the progress toward education for all men.

This advance toward universal education expresses itself chiefly in an increasing emphasis upon elementary education and in bringing higher education under the control and into the service of the democratic ideal.

Reference has already been made to the recent origin of education for all classes. Rousseau in the eighteenth century roused men by speaking out the fierce wrath of humanity against prevailing injustice and by voicing the desire of common men for a share in the spiritual life of civilization. It is true that he seemed at times to attack civilization itself, and that his scheme of education as set forth in the tutoring of Émile is not at all adapted to general education. But his voice roused men powerfully, and its echo will not cease till the spiritual heritage of the race becomes the spiritual possession of the race. The inspiration and value of Pestalozzi's life are mainly to be found in his absorbing purpose to work out a scheme of education for the unification and benefit of all classes. In his story of how Gertrude, a peasant teacher, transformed a village, he typifies and foretells the transformation of all society by the leaven of education. Most closely connected with the common schools of our own country is the name everywhere familiar as the chief founder and champion of our present common-school system—Horace Mann. This educational movement has been a general one, and its forces have operated deep beneath the surface of society. Noted personalities have simply formed the crest of the wave of popular education at different times and places.

The early public schools refused to teach the first stages of education, such instruction being given, in the case of those who could afford it, by private tutors or governesses.

In time, dame schools and kindergartens sprang up to supply the need. The chief concern of the state even in America in regard to education was at first for higher learning. Many of the great independent universities of today owe much of their beginnings and early growth to the colonial and state governments of those days. Today, only a small part of the money and energy spent by the state on education is given to the higher institutions.

But much is yet to be desired. When we consider the number of students in elementary and high schools as compared with the number in colleges and universities, we find that the state spends about three and one-half times more each year on the college student than on the common-school student. And this is in spite of the fact that the common-school income is almost entirely from the state, whereas only about one-third of the support of higher education comes from the state. The total annual expenditure, public and private, for the college student is about ten times greater than that for the common-school student.[4]

We must remember, also, that the best equipt, costliest part of the common-school system consists of the high schools and yet only about five per cent of the common-school enrollment consists of high-school students, the remaining ninety-five per cent of the enrollment being in the elementary schools. It would be interesting to know the exact amount of money spent by the public in educating each student in the elementary schools in comparison with the amount spent per student in the high schools and in colleges and universities. Altho this is impossible, the figures given above, gleaned from the reports of the commissioner of education, are not without significance.

But to any one who takes the trouble to compare the elementary schools with those of higher rank, statistical evidence seems almost superfluous. The serious lack of

[4] These figures have been arrived at by the simple method of dividing the expenditure by the enrollment. This is admittedly a crude method, but our statistical knowledge of education is crude at best. This method, however, when used for both the college and the common school, gives a fairly accurate idea of the proportionate expense per student.

proportion is all too plain. Only about five per cent of the common-school enrollment is in the public high schools and a smaller proportion of students is to be found in college and university. And yet we find these students often housed in magnificent buildings, with splendid equipment and the best of teachers and supervisors, while surrounding these plants we often find the most wretched conditions prevailing in the elementary schools. Indeed, in places elementary pupils are turned away because of lack of room or other facilities. In the well-to-do and exclusive residence portions of the cities, the elementary schools are often given a decent share of attention and support. But frequently they are in absurd and pitiable contrast with the high schools and colleges.

This condition is quite common. Why does it exist at all?

In the first place, government and all social organizations are too much controlled by the wealthy, and it is the wealthy element that furnishes a large part of the patronage of the high school and of the college. The tendency is to bring pressure to bear to build up these schools in the exclusive parts of the cities, and to neglect the ordinary elementary schools, especially those among the laboring people.

In the second place, the recent rapid development of higher education has resulted in an intense rivalry for students, and the high school has often been regarded as simply a feeder for the college. The influence of the colleges has resulted in better standards in the high school, an end in itself to be desired. But from the standpoint of those who never go beyond the elementary school, who make up most of the common-school enrollment, the pressure has been misplaced. The greatest need is in the elementary school, the school of the people; and there the representatives of the people will find their first responsibility.

They have plainly failed to live up to this first responsibility. This is shown by a comparison of elementary school plants with those of higher rank. It is more clearly shown by a comparison of teachers. If one may judge from the

salaries paid and qualifications enforced, there is a general idea that almost anyone can teach young children. But this is a selfish or at least a very short-sighted view. It is a view too often based unconsciously on the fact that children, unlike high school and college students, are helpless in the hands of the teacher and too young to defend their rights. There are many noble and efficient elementary teachers, and most of them are honest and hard working but this will not suffice. The trouble is in the wretched conditions, the low salaries, and the shortsighted, selfish lack of interest, for which the community and the state as well as the teacher are responsible.

High schools and colleges are necessarily more expensive than elementary schools. The teachers require a longer period for preparation and can demand higher salaries. The interests of the students are more complex and the equipment, such as laboratories and libraries, must be more elaborate. But these facts do not alter the primary responsibility of the state for elementary education. At least this much is certain: there is urgent need for greater proportionate emphasis by the state upon elementary education as compared with secondary and higher education. Among the arguments for this important proposition are the following:

(1) A very small proportion of people attend high school, and a much smaller proportion enter college, and as a rule they can better afford to pay for this advanced education.

(2) Churches and wealthy individuals are liberal in the support of secondary and higher education, whereas the support of elementary education falls directly and almost entirely upon the state.

(3) The elementary period is the most important in shaping character and personality. The young child is subjected relentlessly to the shaping influence of his surroundings, and out of these early surroundings his character and personality develop into the comparative stability and independence of the periods of secondary and higher education, or of life in society.

(4) The child is unable to defend his own rights, whereas the high school or college student can maintain his rights and even educate himself. Society owes its first and chief duty to the period of helplessness; and the more adequately it performs this duty of developing the child out of his helplessness into self-reliance and independence, the less will be the need for supplementing the task in the secondary and higher institutions.

(5) The education of most of the people is in the elementary school alone. It is far more important for these to have the direct benefit of the right kind of elementary education than for them to have the more or less questionable indirect benefits derived from the secondary and higher education of a few only. In addition, the indirect benefits which the majority are supposed to receive from the education of the minority in the higher institutions are largely dependent upon their own education. Thus, a university may produce a man of great ability as a statesman. If the majority are themselves properly educated, they can utilize his ability and university training by giving him responsibility and making him responsive to their will and needs. If they are not properly educated, the way is open for him to become a demagogue or a grafter, or if he is well disposed, a sort of benevolent despot.

(6) The progress of democracy depends upon the development of that part of the educational system which has for its function the education of the majority of the people. In the aristocratically organized society of the past, the first stage of education was in charge of tutors and private teachers engaged by the rich, so that education was confined to the few. The universities and secondary schools were founded for the higher education of the few who had had this advantage of tutors and private teachers. These higher institutions have had centuries of support and development, while elementary schools for all are of recent origin. They are in the logical and natural direction of further educational evolution in harmony with a democratically organized society.

The tendency to devote an increasing proportion of attention and funds to elementary education is, therefore, thoroly justifiable, and must continue, in order that education may be rescued from top-heaviness and made genuinely democratic. This does not mean that less money should be spent on higher institutions of tested worth, but simply, as stated, that an increasing proportion ought to be spent on the education of those who are limited to the elementary schools. Nor does it suffice to say that the high schools and colleges are open to all. Comparatively few students find it possible, in practise, to enter the open door; and it is not desirable that every one should go thru college, or even thru the high school as at present organized. The important thing for the state to do is to make it possible for every child to secure the first elements of education in such a way that he may use them effectively as a free individual, a worker, and a citizen. More and more are statesmen and voters realizing that this is the most important educational function of government.

Not only are the common schools receiving an increasing proportion of public funds; the higher institutions receiving public support and many of those privately endowed are giving emphasis to those departments and methods which are of direct value to the great body of citizens; they are gradually coming under the control and into the service of democracy. Agricultural colleges have sprung up thruout the country, stimulated by federal and state grants. Extension work, by which some of the benefits of university training are made available to those who can not attend, is rapidly being developed. There is a distinct trend thruout the country to direct higher education toward the democratic ideal. The University of Wisconsin, commonly regarded as one of the leaders in this movement, claims for itself this ideal: "Every student owes to the public, in the form of superior usefulness to it, both while in the institution and afterwards, a full equivalent for its expenditure in his behalf."[5]

[5] An extract from the introductory pages of the annual catalog.

It is true that the expansion of higher institutions into new fields of work may degenerate into superficiality or a mere advertising scheme; but for the most part such work is an expression of the advancing ideals of democracy and public service. A school's usefulness is not to be measured by the amount of extension work it does, however important that may be, for ordinarily its chief service should be rendered in the production of the right type of leaders—men and women whose individualities are sanely developed, whose powers are trained, and whose lives are in accord with social justice and progress. When a higher institution renders such service as this, the public will not be slow to respond, and there will be little need for exploiting extension work as an advertising scheme, and little need for political machinations for the securing of funds.

In some instances, our colleges and universities have rendered conspicuous service to democracy. But they are too often centers of social exclusiveness and snobbery and scholastic conservatism. Since Wendell Phillips' powerful indictment of Harvard, his *alma mater*, in 1881, a great change has taken place. But we are reminded by President Wilson's recent fight for democracy at Princeton and the indifferent success which even he achieved, that much is yet to be desired.

Much the same struggle is going on in various state universities, where it often finds expression in the fraternity problem. So insistent has this problem become that in some states it has reached the state legislatures, the opponents of the fraternity system contending that it is one of the chief obstacles to the further progress of higher education toward the democratic ideal. But whatever may be their obstacles, the state universities have done much to democratize higher education, and it appears that their future success will be measured largely by their loyalty to this ideal. Elementary education must be given greater proportionate emphasis, but there is a large place for the right kind of higher education. As long as our social ideal remains democratic, the chief reason for state-supported higher edu-

cation is for such institutions to serve as centers and bulwarks of democracy.

These, then, are the main tendencies by which the movement for a just sharing of the control and enjoyment of wealth is finding expression in education. Changed economic and social needs are being met by various adjustments in education, and among these the most important are: the development of direct vocational and semi-vocational training; the socialization of the entire curriculum; the utilization of the culture values of industrial education; and the growth of universal education by means of increasing emphasis upon elementary education and the bringing of higher education under the control and into the service of democracy.

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V

LANGUAGES AND THE COLLEGE-PREPARATORY COURSE

The action of the New York State Examinations Board (February, 1914), removing Spanish from the list of languages accepted toward any of the three types of College Entrance Diploma (admitting to courses in arts, science, and engineering), was a step in the right direction. Of course, at the present moment Spanish is a very popular subject and seems destined to become more so. The present writer believes, too, that vastly more attention than we now give it should be bestowed not only upon Spanish but also upon its allied subjects: Spanish, Portuguese, and South American literatures, history, art and culture. But that does not mean that he considers Spanish equally good for all classes of students at exactly the same age. He does believe that every high school, technical school, college and university in the country should offer Spanish courses in quantity and kind adequate to the needs and abilities of their respective pupils.

The secondary school pupil who looks forward to study in a College of Liberal Arts or a College of Liberal Arts and Sciences, has a longer perspective of studies than has any of his fellows. His course of studies, therefore, requires the utmost nicety of articulation, if he is to be saved from fundamental errors of plan, and if the educational systems of both high school and college are to be saved from wasteful duplication. It is admitted on all sides that the expense of maintaining the staff of highly trained specialists (with their laboratories and libraries) necessary for a university is prohibitive for even the best endowed of our colleges; and even the universities are seriously considering the advisability of not duplicating certain exceedingly expensive specialties. Likewise certain college necessities in staff

and equipment are prohibitively expensive from the point of view of the high school. But the matter of expense is not the only criterion that should count in the differentiation of the general fields of activity for the three grades of institutions. The nature of the subject must also be considered. Some subjects, in themselves abstruse, can be pursued properly only by a student whose mind has been highly trained in minute analysis and logical thinking; other subjects, not inherently abstruse, require a vast equipment of general knowledge, if the student is to acquire an adequate understanding and appreciation of the underlying causes of certain apparently simple phenomena, and a realization of the tendencies underlying a given series of events in the life of mankind. Neither of these classes of subjects is fit material for a high school course of any kind. Other kinds of subjects are peculiarly suited to the age and ability of the high school pupil, notably language study, native and foreign. But while all elementary language study is equally fit material for a high school curriculum, and while the study of one language may be theoretically as good a mental training as the study of any other language, the actual possession of one language may have distinct advantages over the possession of some other language; and in the programme of studies of the student preparing for college the greater perspective and the ultimate need should not be lost sight of in favor of the more short-sighted whim of the present hour.

It is true that from one point of view it would seem to make little difference what order was followed by a student in acquiring his foreign languages, provided he did acquire them and provided the high schools and colleges could afford unlimited duplication of subjects. But there are three serious objections to this plan.

In the first place, neither the high school nor the college can afford unlimited duplication, and we shall ere long, I trust, awaken to the fact that a certain amount of differentiation by common consent must be accepted in the interest of both high school and college.

In the second place, for language instruction it is peculiarly undesirable to have in a given class students of unsimilar antecedent training. For example: A, entering college in, let us say, 1891, with four high school years of Latin and three of Greek, and continuing both those languages for two years in college, during which two years he studied French in addition, could take an elementary German course at a much higher speed in his junior year than could B, who, on entering in 1893, with the same high school training in languages might wish to elect elementary German in his freshman year, whether with or without a continuance of Latin and Greek for the first two years of his college course. If many men like B were admitted to the elementary German course with A, it would be difficult to conduct the course in such a manner as not to overwork B, or underwork A and get him into lazy intellectual habits. The difficulty would be largely increased if B entered with the presentation of two years of one foreign language only, or, as sometimes happens, without any foreign language.

And in the third place, certain languages, despite all the disputing pro and con, really do have more value as tools to the student who is to prepare for college than do certain other languages, whose acquisition at a later stage of his training may also be extremely desirable; and certain other languages may have a greater value for the non-college-preparatory secondary student than have the languages needed by the prospective college student.

We should not allow the issue to be clouded by the present popular clamor for the inclusion of Spanish everywhere. The present writer believes that every educated American should master Spanish, and become thoroly familiar with Spanish and Spanish-American literatures, history, art, and culture;[1] but he also believes that the college-preparatory student would act wisely by postponing those studies to his college course, thereby permitting himself to get a good grounding in high school in the other subjects men-

[1] And with differences the same may be said for Portuguese and Brazilian.

tioned as necessary preparation and tools for work to be done in college.

Hence the statement at the beginning of this article, approving the action of the New York State Examinations Board. In so far as that action concerns colleges of engineering, I have no interest in approving or disapproving, and to a certain extent that is true concerning its relation to colleges of science; but in its relation to colleges of liberal arts or colleges of liberal arts and sciences (where the two lines of interest are merged) the action deserves unqualified approval.

Several years ago the president of one of our leading universities asked the division of modern languages (comprising the departments of comparative literature, English, Germanic languages, Romanic languages, and Celtic) to examine carefully and report upon the following questions: "Is it desirable to abolish from the college curriculum the first two years of college French and the first two years of college German? If so, is it now feasible? If desirable and not now feasible, when in your judgment will it become so?"

The answers given to these questions by the aforesaid division of modern languages do not concern us now; but the investigations made in connection therewith led the present writer, who was then a member of that division, to carry on further investigations into the broader question concerning the position of all language study in the curriculum of the college-preparatory course in our high schools and in the corresponding schools abroad. The preliminary results of these later investigations (based upon information furnished by the Ministers of Public Instruction in most of the foreign countries, supplemented by information secured thru private correspondence with scholars in this country and abroad) are here given.[2] It should be borne in mind that, thruout this discussion, the general possibilities of high school instruction (courses in business, art, science, manual

[2] Detailed acknowledgments of indebtedness will be made in the longer article that is in preparation.

training, normal training and the like) are not considered. We are concerned only with those high school courses that prepared for colleges of liberal arts and with similar courses in the foreign schools.

At this point let me admit frankly that I am endeavoring to enter a plea in defense of the college-preparatory course in the high school (and of the student who wishes to pursue that course), even tho to many such a defense may seem to be a work of supererogation. As a matter of fact the college-preparatory course has been too frequently deserted by those who should be its strongest supporters; and its content has been mercilessly assailed by those who had no essential interest therein, but who coveted the distinction and prestige of its name, altho they were unwilling to do the actual work that it entailed. I would not be understood as implying that college entrance requirements ought never to change or that college-preparatory courses in high schools should remain invariable.

The college of liberal arts has to meet complex problems that vary with the passing years. Modern life becomes constantly more complex and the public makes constantly more complex demands upon the college graduate. The college, to meet these new demands, must demand greater preparation on the part of those who wish to enter its portals. To take an illustration in one field only, time was, even in epochs relatively recent, when a knowledge of Latin and Greek equipt a man, no matter what his profession might be, for intellectual intercourse with his fellows anywhere thruout the civilized world. I do not mean merely, nor for the present argument do I mean at all, the cultural results of a common heritage of literary knowledge and acquaintance. I mean simply the ability to express one's thoughts, whether in writing or speaking, in one or the other of the languages that served as media of intercommunication thruout the occidental civilized world; and the equally important ability to understand the thoughts of one's fellows, whichever of the two might be the language in which the thought was exprest. In other words, a man

trained under that system was able to understand, and to make himself understood by, all those with whom he needed to maintain intercourse, because (to use a commercial phrase) he was equipt with the currency of the intellectual world. Other languages would have furnished perhaps just as good a mental discipline, or thru their literatures might have given an equally cultural result, but they were like the gold ingot that has not been put thru the mint and has not received the impress that stamps it as the currency of the realm. It may be just as good, but it is neither so convenient nor so usable; in short, it does not pass in the daily exchange of life. Nor would those other languages have been equally useful and convenient at that time. During the past twenty-five years, Greek, from the utilitarian point of view, has suffered an eclipse, from which it is only now beginning to recover; and some of its most ardent supporters today are scientists who are only secondarily interested in its cultural value, and who are supporting it almost entirely because they have come to see its utilitarian importance.

Now what must the college of today do in order to equip a man equally well (from this same point of view) for intellectual intercourse with his professional fellows anywhere thruout the civilized world? Latin has long since ceased to be the only international language. French rose to importance and for a while divided the honors with Latin as an international language and became *the* language of diplomacy. At one time Spanish had its turn as an international language, surpassing French and rivalling Latin; but the breaking up of the great Spanish Empire forced Spanish into the background. English and German then became prominent, altho without overwhelming either Latin or French. Today there is no universally accepted international language, and even our boasted world-wide English has small chance of becoming *the* world language as Latin was for so long. Consequently, in order to equip today's students for intellectual world-citizenship as well as the college of yesteryear equipt its students for intellectual world-citizenship, the college of today must see to it that

(no matter what his profession) the student be able to express himself well in one, or more, of these four languages (and the more the better), and that he be able to understand his professional fellows in all four of them, the irreducible minimum being the ability to write and speak well one of the four (naturally his native tongue), and to read easily and rapidly all four of them.

The college never was able to obtain the necessary results in Latin and Greek without the previous foundation laid in the high school; nor can it today obtain the necessary results in English, French and German without a similar previous foundation laid in the high school; for language work, more perhaps than any other study, must be begun early if it is to be effective. And it is along these lines that the college has been obliged to change its entrance requirements, with the consequent change in the college-preparatory course in the high school.

But the college is not alone in having to meet complex problems that vary with the passing years. Modern life makes constantly more complex demands upon the high school, which has been not unjustly called the people's little college. Especially is this designation just in states whose academic system is not crowned by a state college and a state university. The results of these new demands upon the high school are visible in the numerous programmes now offered by such schools. Among these complex demands we find the one for the maintenance of a college-preparatory course which shall equip the student as the college needs to have him equipt.

In the multiplicity of programmes now offered, especially in our larger cities (Chicago, for instance, offers twenty-one distinct courses), it would seem as tho the maintenance of a college-preparatory course that shall satisfy the real needs of the college of liberal arts ought not to meet with very great difficulty. Now the college-preparatory course, by seniority and tradition, enjoys a certain prestige that does not attach to the more recently established courses; and many students would really prefer to take the college-

preparatory course if only they could study something other than the subjects traditionally taught in that course.[3] Various plans are devised for making inroads upon the subjects that the college really feels it must ask its students to present; and perhaps I can best illustrate them by citing one concrete example. The superintendent of public schools in one of our larger cities recently sent a communication to the college faculty of each of several of our largest universities, stating that courses in Italian, Polish and Lithuanian were being given in the high schools of that city, and asking the said faculties to accept those languages for corresponding entrance credits in lieu of their present foreign language requirements. I have yet to discover a single subject taught by any faculty of liberal arts thruout the country wherein a student possessing any one, or indeed all three, of these languages could do as good work as could be done by a student possessing any one, or all three, of the foreign languages that the colleges are now demanding or feel that they ought to demand; and yet this substitution at the student's option was seriously proposed.

Witness Harvard's requirement that the student shall have studied the elements of both French and German and shall either have past admission examinations in these subjects or successfully pursued them in college courses; and her special requirement that, no matter how many points a student may have towards his degree, he can not

[3] This tendency is not confined to the high schools. The assaults on the college-preparatory course are paralleled by the assaults on the courses leading to the degree of Bachelor of Arts, and on the conditions of membership in Phi Beta Kappa. Students who are specializing in science, law, or medicine, or who inject a maximum of these subjects into their college course, cry aloud for the degree of bachelor of arts, and for membership in Phi Beta Kappa, and feel very much aggrieved if one point out to them that they have earned a bachelor's degree in science, law, or medicine, and membership in the corresponding honorary societies, but not the degree and membership for which they plead. So far as I am aware, there is no corresponding counter-tendency on the part of students of the liberal arts, who neither expect nor wish to receive honors in science, etc., for work done in the liberal arts. If this corresponding counter-tendency on the part of students of the liberal arts does exist, however, it is equally to be condemned. Nor is this disdain on the part of scientific students for scientific degrees to be met abroad, where scientists respect their scientific degrees and are proud to wear them.

be rated as a regular member of the junior class until he shall have past an oral examination in either French or German. And Harvard cares nothing at all about the reasons that may have prevented the man from having acquired this knowledge; and cares equally little by what method he has acquired it. For his last two years of Harvard work he must be able to use one or the other of these languages as a first-class tool, kept in first-class condition. This is a long step in the right direction. Columbia refuses to graduate a student without two college years of French or of German, two years having been determined upon because for students of college age, with other linguistic training in high school, such a course should give an easy reading command; and in practise she strongly recommends that he pursue to equal proficiency the other language of the two. Furthermore, altho she is not so advanced in this respect as is Harvard, Columbia proves that she considers Latin, French and German as indispensable tools for higher scholarship by refusing to recognize a graduate student as a candidate for a higher degree until he shall have proven his ability to read at sight these three foreign languages. As at Harvard, so at Chicago, "all candidates for a bachelor's degree are required to pass an examination set to determine their ability to read French or German with reasonable ease and accuracy. Each student must present himself for such examination before the end of his second year of residence." So ran the rule in the Chicago catalogue for 1913–1914. Last spring, however, the science men forced upon the faculty the abrogation of this rule.

By all means let the high schools heed the demands of the times and teach every subject that the citizens in sufficient numbers request. And let those subjects be grouped together into systematic courses to lead to the specific end that the citizens desire. But let the high schools maintain, also, and maintain unimpaired, the college-preparatory course that shall give to the would-be college student (for he, too, is the son of a citizen) what he will need. And what the content of such a course should be

will be learned by consultation and cooperation with the college authorities and with the prospective college students, in the same way that the content of other courses is determined by consultation and cooperation with the patrons and citizens who desire them.

But before we can attain this much-to-be-desired state, it will be necessary also for the colleges of liberal arts to take careful account of stock, come to the full realization of the fact that their task is to train men and women for world-citizenship, and make a set of entrance requirements that shall be in harmony with this high calling, while not forgetting the limitations that are inherent in the high school curriculums.

It behooves the college of liberal arts further to plan carefully its own curriculum and not allow itself to be influenced by interests that are foreign to its purpose. I have never quite understood why a college of liberal arts should not be permitted to go before the world with a programme of study representing the interests and aspirations for which it stands, instead of a programme into which has been injected a set of regulations made in favor of other interests, as in the case of the recent action at Chicago. Similarly, I do not see why a faculty of sciences should not be permitted to give untrammelled expression to its faith in a programme of studies for which it is willing to stand sponsor before the world and to which it is willing and proud to give the corresponding label, as would be done for similar studies in a foreign institution. Again, one wonders why so many scholars become so warped in their judgment that they see their own subject thru a telescope held in the usual way, and all other subjects (including the interest of the average student who may not wish to follow their subject) thru a telescope reversed. It would seem as tho it ought to lie within the limits of possibility to expect the professors of a college of liberal arts and sciences that confers both the B.A. and the B.S. degrees to legislate concerning each degree and the student who may wish to follow the course leading thereto, with an eye single to the interest of the

student in question. And yet how often we see the undignified spectacle of each professor making a wild scramble to have his subject included in the list of obligatory studies. Last spring the newly established Faculty of Liberal Arts and Sciences at the University of Illinois (replacing the two separate faculties that had been in existence for some years) legislated new requirements for the degree of B.A., leaving the B.S. for later treatment.

By the old requirements every student was obliged to take at least eight semester hours (in most cases a full one-year course) in each of five groups: I—English; II—Foreign languages; Greek, Latin, Germanic (not merely German) or Romanic (not merely French), and the whole offering must be in the same language; III—History and the social sciences; IV—Mathematics and philosophy; and V—Natural sciences.

By the new requirements group II has been considerably improved. In the first place the student's choice is limited to four specific languages: Greek, or Latin, or French, or German. And in the second place he must pursue foreign language study for two years in college unless he offered more than two units of foreign language for entrance. But he is not required to continue the language offered for entrance, nor is he prevented from actually satisfying this group requirement by taking three separate languages for what is equivalent to one college year each. A proposal of the language professors that the requirement be so stated that at least one language must be studied for the equivalent of two college years was voted down.

The subjects included formerly under groups IV and V, with a total of sixteen required semester hours, have become in the new regulations groups IV, V, and VI, with a total of twenty-two required semester hours and so rearranged that a student who wishes to take chemistry or physics as his natural science must still, in order to satisfy all the group requirements, take eight semester hours in some other science, chosen from group V, which includes only sciences.

These various prescribed studies and group requirements total sixty semester hours, more than a quarter of which are devoted to science groups. The remaining seventy semester hours required for the degree may be made up at the student's pleasure subject to a few simple rules, the most important of which are that he must so arrange his work as to offer one major subject (twenty hours exclusive of courses open to freshmen) and one minor (twenty hours); and that he may not count towards graduation more than forty hours in any one subject. Of the twenty-six subjects at present recognized as majors in this particular college, ten are laboratory sciences. Hence there are many combinations whereby it is possible for a student to obtain his degree in this college with as high as eighty-six points in science out of a total of one hundred and thirty, or (eliminating the seven points for physical training and military science) out of a total of one hundred and twenty-three points: e. g., eight hours physics, from group IV; eight hours botany, from group V; forty hours chemistry, to satisfy the major requirement of twenty hours and not exceed the maximum permitted; thirty hours zoology, to satisfy the minor requirement of twenty hours without exceeding the maximum permitted. And yet this faculty was legislating not for the degree of Bachelor of Science, but for the degree of Bachelor of Arts. The United States under its Pure Food and Drugs Act requires the exact labelling of foods, wines, and drugs. There seems to be no authority that can enforce the correct labelling either of educational and intellectual pabulum, or of the product nourished thereon.

I have thus carefully analyzed the new B.A. regulations at Illinois because as a member of the faculty in question I can not justly be accused of a violent prejudice against her action; and because in my judgment the new regulations represent not only a great advance over our own former requirements, but also a great advance over the requirements now in force in many of our leading universities.

In reaching its conclusion concerning entrance requirements the college need concern itself with two questions

only: First, How does it need to have its entering students equipt so as best to accomplish the work that the world expects it to do with them? and second, How much of such equipment can the high school give them properly?

Despite the popular opinion to the contrary, the average present-day high school curriculum of four years preparatory to college proves upon examination not to be overloaded with a host of unnecessary frills. The college-preparatory course of the typical high school contains nothing that is not demanded or accepted by the leading American colleges, as witness the entrance requirements set up by the colleges and universities that form the College Entrance Examination Board; and there is room for nothing more in the curriculum of the high school as now constituted, without sacrificing something from the list of studies that the colleges themselves have already branded as essential or acceptable by their publication of the existing list. Of course all well-equipt high schools offer even in the college-preparatory course a certain number of alternative electives; but when the pupil has finished the usual four-year course, by whichever set of electives, he or she has nothing to spare above the entrance requirements of the college selected. If the colleges reach the conclusion that subjects other than those in the present required list are preferable, some subjects now in the list must be eliminated; or the required amount thereof must be materially diminished. The high schools can not be required, on our present basis, to do more work unless they be given a longer period in which to do it; and manifestly the additional time can not be gained on the upper end.

There exists in the minds of many educators, in grade schools, in high schools, and in the ranks of city superintendents, a strong feeling that much time is at present wasted in the grade schools, whose programmes contain a quantity of subjects that, however interesting, are of no permanent value to the pupils, or can be more profitably studied at a later period. These authorities believe that

the high schools could use to advantage this wasted time, the estimate of which varies from two to four years.

Dr. A. B. Poland, City Superintendent of Public Schools of Newark, N. J., is in no sense an extremist in educational matters. In his official report of October 27, 1910, Dr. Poland marked for me the following passages (pages 69, 70 and 71) as representing justly his position on this question:[4]

"The reduction of the elementary school course to seven, if not to six years, is sure to come as the next and greatest step in educational progress. I would like to see Newark take and hold the lead."

"I am strongly of the opinion that, in theory at least, our school system should be organized so as to admit pupils to high schools at least two years earlier than now, or at the beginning of the 7th grammar grade. If this is too radical a measure to go into effect at once, another plan, that of admitting to the high school at the beginning of the eighth grade would, I feel sure, be entirely practicable..... Such an experiment would, in my judgment, lead eventually to a *seven*, instead of an *eight* years' course in all the grammar schools of the city. Hence would arise an enormous saving in the cost of schools, to say nothing of the greater benefit to be derived by the pupils by reason of saving a year's time.

"This discussion leads naturally to the question: Are we now ready to reduce the grammar school course to *seven* years?

"Such a reduction would mean, in the first instance, a reorganization of the course of study, and to do this would mean the elimination of a large amount of subject matter that, in my judgment, might well be eliminated. Thus, for instance, algebra might well be cut out of the elementary school course. A considerable amount of history and geography might also be cut out—facts of history that are usually forgotten soon after they are memorized. Much less time

[4] Fifty-fourth Annual Report of the Board of Education of Newark, N. J., 1909–10.

might be given than is now given to the study of formal grammar—especially since the study of grammar could be pursued more advantageously under high school conditions. Proficiency in the three R's, that is to say, the ability to read, write and cipher—and spell—need not be impaired in the least by a seven years' course. Pupils, as a rule, gain comparatively little in the three fundamental subjects during the last year in school; indeed, for that matter, the last two years of the grammar school are, in my opinion, too *long drawn out.* Pupils gain too little for the time consumed. Witness the enormous dropping out of school at about this time due in no small measure to its being irksome."

"*Too much time is wasted in the upper two grades of the grammar school; or, in other words, there is no need of taking eight years to complete the elementary school.*

"If other evidence were needed to prove the wisdom of reducing the time now taken to complete the elementary school course, it may be found in the plan already inaugurated by the State of New York of making the elementary school course six years only. The six years' elementary school course has been recommended by the National Educational Association, and quite recently, also, by the New York City High School Principals' Association. It is the quite uniform practise in European countries to begin the secondary (high) school course earlier than is customary in this country. Kansas City, among American cities, has for many years completed its course below the high school in seven years. The claim made by Kansas City that it has given substantially the same work in *seven* years that other cities have been giving in *eight* years has never been successfully refuted. I would like to see the experiment tried in a group of grammar schools in this city."

In these passages the italics are Dr. Poland's own. From long interviews with Dr. Poland in the summer of 1912 and in September, 1913, I discovered that he is now even more strongly convinced of the desirability of the changes mentioned.

It will be noticed from the passages quoted that while he argues directly for the immediate establishment of a seven-year grade school and five-year high school schedule, indirectly he argues for the establishment of the suggested six-year grade school and six-year high school schedule, and demonstrates how the essentials of the present eight-year grade school programme can be mastered in six years. In the first place many of our leading educators, if not indeed a majority of them, agree that the work to be done in the last two years of the grade schools is too little for the time spent; and that the whole of the work of those two years could be better learned in one year. Furthermore, from the first six years of the grade school course as now constituted "a large amount of subject matter could be eliminated" without interfering in the least with the three fundamental subjects taught in these grades; and these eliminations would be sufficient to save a year of time, which added to the year saved in the last two years makes the two years of total saving that were mentioned by Dr. Poland and have been under consideration by the other authorities whom he cites. And we must bear in mind that the six-year high school is actually here, and has now past satisfactorily beyond the experimental stage.

But even if we granted for the nonce that the high school college-preparatory curriculum is not at present full and that there is room for the aforesaid two years of college French and two years of college German (which, according to the equations established by the Committee of Twelve,[5] represent four years of high school French and four years of high school German), we should meet a very serious pedagogical difficulty. With the necessity of teaching in a four-year high school curriculum four years of French, four years of German and four years of Latin, it becomes self-evident that the pupil must commence all three of these languages at the same time. The present writer has twice tried the experiment of commencing two languages at the

[5] Report of the Committee of Twelve of the Modern Language Association of America, Boston, 1900.

same time, at the age of fourteen beginning Latin and German, and at the age of twenty starting Spanish and Anglo-Saxon, and each time the experiment proved disastrous to one of the two languages involved, in each case the second one mentioned, so that he was obliged to take up again *ab initio* the study of those two.

Aside from all other considerations, however, our present system leaves us face to face with the fact that, by and large, American pupils do not begin their first foreign language until the age of fourteen, and then they are given four or five periods per week, periods varying from forty to forty-five minutes. Furthermore, the pupils are not obliged to continue the systematic study of that language thru a series of years, and there are entirely too many cases where a pupil is permitted to take, and to offer for entrance to college, two high school years in each of two languages, or, worse still, two high school years of one language and one of another. The justification for this statement will be found in the longer article that is in preparation and in which are given tables which show the curriculums of the college-preparatory courses in the high schools of the fourteen leading cities of the United States, together with similar curriculums for a few other schools that prepare for college.

Let us now see how linguistic work is handled in the secondary schools of five of the great foreign countries whose educational systems have been under consideration.

In all these countries the native language is seriously and systematically studied thruout the entire course of the secondary school, and practically never for less than three hours per week.

In a French lycée or collège the student begins in his first year, at the age of eleven, in addition to Latin one modern foreign language, the choice being made from German, or English, or Spanish, or Italian, in which he has recitations five hours per week. During the first four years of his course he must carry these three languages, the native and two foreign, in the stated proportions. In the fifth year, at the age of fifteen, he has the following

choice in addition to maintaining his Latin and French: Continue two hours per week the living foreign language originally chosen and add Greek; or, Continue three hours per week the same living foreign language originally chosen and add a second living foreign language four hours per week. But whichever choice he makes must be carried thru the next two years. At this point, and at the age of seventeen, the first bachelor's degree is obtained. The following year is spent in making what is known as the "sanction" of the degree, and no systematic linguistic work is carried on, altho much of the work done requires ready use of the linguistic equipment already obtained.

In Belgium the royal athénées have likewise a seven-year curriculum, but the pupil enters at the age of twelve, and the seventh year of the curriculum is just as systematic as any other year. These statements hold for the whole of Belgium, but linguistic problems are treated in slightly different fashion, in what are otherwise identical curriculums, according as the schools are located in Flemish or Walloon territory. In both territories there are three programmes under the general heading of Ancient Humanities: the Greco-Latin, the Latin-Chemical, and the Latin-Mathematical. For the purposes of illustration I choose the Flemish schools.

BELGIAN GRECO-LATIN CURRICULUM

Subject	7	6	5	4	3	2	1	Total
Religion	2	2	2	2	2	2	2	14
Latin	6	7	8	8	8	8	8	53
Greek	—	—	5	5	5	5	5	25
French	6	6	3	3	3	3	3	27
Flemish	6	6	3	3	3	3	3	27
German or **English** (obligatory)	—	—	—	2	2	2	2	8
English or **German** (elective)	—	—	—	(2)	(2)	(2)	(2)	(8)
History	2	2	2	2	2	2	2	14
Geography	1	1	1	1	1	1	1	7
Mathematics	3	3	3	3	3	3	3	21
Natural Sciences	—	—	—	2	2	2	2	8
Drawing	2	2	2	(2)	(2)	(2)	(2)	6 + (8)
Music (elective)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(7)
Gymnastics (during recreation)	2	2	2	2	2	2	2	14
Total of obligatory hours	30	31	31	33	33	33	33	
And of elective hours	31	32	32	38	38	38	38	

The Latin-Chemical and the Latin-Mathematical curriculums differ linguistically from the Greco-Latin curriculum only by the complete suppression of Greek. All the other languages are maintained for the same number of hours and years in all three curriculums.

The Austrian school system shows at least three schools whose curriculums correspond in nature to our college-preparatory high school curriculum. They take the pupil at the age of nine and carry him thru eight or nine years of study. The old type of *Gymnasium* gave a course of nine years. The Minister of Public Instruction has recently proposed a plan for an eight-year *Gymnasium*, which is being extensively used, altho not to the exclusion of the older type. In addition to these two types of *Gymnasium*, there are the *Realgymnasium* and the *Reform-Realgymnasium*, each offering an eight-year curriculum. For our purposes we give the curriculum of the last-mentioned type, which offers no Greek.

AUSTRIAN REFORM-REALGYMNASIUM

Subject	1	2	3	4	5	6	7	8	Total
Religion	2	2	2	2	2	2	2	1	15
German	4	4	4	4	3	3	3	3	28
French	6	5	4	4	3	3	3	3	31
Latin	—	—	—	—	7	7	8	8	30
History	2	2	2	2	3	3	3	3	20
Geography	2	2	2	2	1	1	1	—	11
Mathematics	3	3	3	4	3	3	3	2	24
Natural History, etc.	2	2	—		3	3	—	2	12
Chemistry	—	—	—	3	—	—	4	4	11
Physics	—	—	3	2	—	—			5
Geometrical Drawing	—	2	2	3	—	—	—	—	7
Free-hand Drawing	4	4	4	3	2	2	—	—	19
Philosophical Propaedeutics	—	—	—	—	—	—	1	2	3
Chirography	1	—	—	—	—	—	—	—	1
Gymnastics	2	2	2	2	2	2	2	2	16
Total	28	28	28	31	29	29	30	30	

The curriculum of the standard German *Gymnasium* is so well known that it will suffice for our present purposes to say that it is of nine years' duration, carrying the pupil from the age of nine to his eighteenth year; and that Latin is begun in the first year, French in the third year, Greek

in the fourth year and a second modern foreign language three years thereafter; that German is systematically studied thruout the curriculum; and that all the other languages mentioned are carried from the year they are begun until the end of the curriculum. The full gymnasial programme follows:

CURRICULUM OF GERMAN GYMNASIUM, 1912

	VI	V	IV	U III	O III	U II	O II	U I	O I	Total
Religion	3	2	2	2	2	2	2	2	2	19
German and Historical Tales	3 / 1 } 4	2 / 1 } 3	3	2	2	3	3	3	3	26
Latin	8	8	8	8	8	7	7	7	7	68
Greek	—	—	—	6	6	6	6	6	6	36
French	—	—	4	2	2	3	2	2	2	17
English	—	—	—	—	—	—	2	2	2	6
History	—	—	2	2	2	2	} 3	} 3	} 3	26
Geography	2	2	2	1	1	1				
Mathematics	4	4	4	3	3	4	4	4	4	34
Natural Sciences	2	2	2	2	2	2	2	2	2	18
Writing	2	2	—	—	—	—	—	—	—	4
Drawing	—	2	2	2	2	—	—	—	—	8
	—	—	—	—	—	—	—	—	—	—
Total	25	25	29	30	30	30	31	31	31	

To the above is added:

(*a*) As obligatory: 3 hours gymnastics for all classes, and 2 hours singing in VI and V. Students with talent for singing are required to take part in chorus singing in IV upward.

(*b*) As optional: 2 hours drawing UII and upward, and 2 hours Hebrew in OII and upward.

Of late years there has been a growing feeling among Germans who are engaged in the secondary school work of their country that the age of nine is too early to force the pupil into a path that is practically a choice of a career, and the tendency is growing to recommend that this decision be postponed for at least two years thus curtailing the secondary school by two years on its lower end, and maintaining a curriculum of seven years.

Among British schools the celebrated Perse School at Cambridge, founded A. D. 1615, is perhaps as good an example as we could find for our purposes. The curriculum is given herewith:

CURRICULUM OF THE PERSE SCHOOL, CAMBRIDGE, ENGLAND

36 lessons in the week, each 45 minutes (except in the first stages when they are shorter)

	English Subjects	Mathematics	Nat. Hist. or Science	Drawing Singing or Modelling	French	Latin	Greek	German
Before 9	24	6	2	4	—	—	—	—
9–12	18	6	2	4	6	—	—	—
12–14	12	6	4	2	6	6	—	—
14–16	6	6	4	2	6	6	6*	6*
16–19	6	(Special work in any subject, 26)						4†

* Alternatives.

† For those who took Greek earlier.

Summarizing these statements we find that the French pupil begins his first foreign language at the age of eleven, the Belgian at the age of twelve, the Austrian at nine, the German at nine, with a modern tendency among the Germans to postpone the first foreign language until the age of eleven, and the British at nine. In all these countries the pupil begins his first foreign language from two to five years before the American pupil undertakes a similar study.

Summarizing in still another way we find that at the age of fourteen, when the American pupil is beginning his first foreign language, the French pupil is already busy with his second foreign language, the Belgian with his second or third, according to the course, the Austrian with his second, the German with his third, and the British begins his third while continuing the first two.

Furthermore, in all these countries and for all these languages the number of hours per week of recitation is much higher than among us; and in all of them more years are devoted to each language than is the case with our pupils. The educators of these countries evidently believe that it is wise to begin several languages as early as possible, and before the age of puberty, while the mind and memory of the pupil are most impressionable. These same educators evidently do not fear, as do many of our American educators, that giving the pupil a large equipment linguistically makes an ill-balanced citizen, for over against our paltry two languages, four and three years, respectively, as a maxi-

mum, with a maximum per week of five periods of three-quarters of an hour, the Belgian schools, for example (I choose them because the length of their curriculum lies between ours and those of the other countries and the age at which they receive their pupils is closest to our own) give their pupils by the end of the course four obligatory foreign languages and one elective; to wit: seven years of Latin and of French, five years of Greek, and four years of English or German, with four years optionally of the other one of these last two languages; and the average number of hour-periods per week is nearly as high as our maximum number of three-quarter-hour-periods. As the Belgian schools carry the pupil one year beyond our high schools, to the age of nineteen instead of our own eighteen, we shall have to deduct one year from the number of years ascribed to each language; but the number of languages remains unaltered.

If we could thruout the country begin our high schools with pupils of the age of twelve, as does Belgium, we could carry out a similar schedule adapted to our needs, and one year shorter, as just said. If we could begin our high schools with pupils of the age of eleven, as the French schools are doing and as Germany is thinking of doing, we should be able to carry out the whole of the Belgian schedule, adapted to our needs. The curriculum of The Perse School could easily be adapted to our needs, whether we adopt a six-year or a seven-year high school course.

In addition to the obvious advantage of allowing our pupils to begin their foreign language work at an earlier and better age, and to take up more languages and continue them longer, if such a six-year or seven-year high school curriculum were adopted here, a very important advantage would be gained in connection with the teaching staff. The teachers, for the two or three extra years that would be taken from the present grade schools, would be high school teachers, appointed by high school directors under standards of training that apply to high school teachers. Time was when the possession of a B.A. degree was con-

sidered evidence of ample training for the position of teacher in a high school. Nowadays the would-be high school teacher must generally be a man of university (not mere college) training, whether he be a Doctor of Philosophy or not. No grade school principal, however strict he might be about his standards of training, would ever dream of applying such standards in the case of teachers for grade schools.

If such a seven-year, or even a six-year, high school curriculum were generally adopted here, we could answer in the affirmative the questions raised several years ago by the aforesaid university president and there would be room therein for the first two years of college French and the first two years of college German, without interfering with Latin, or Greek, or English, and it would not be necessary to begin two languages in any one year. A pupil so equipt is prepared to read the scientific output in his specialty, no matter what that specialty may be, nor which, of the four great languages that serve as media of inter-communication thruout the occidental civilized world, is the language that conveys the information; and he is prepared further to amuse himself in his leisure hours in a manner befitting his station. Such could not be said of the average graduate of our high schools today—not even in the case of those who pursue the preparatory course for the college of liberal arts.

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VI

THE VOCABULARY OF TWO YEARS

It is customary for careless writers and speakers to make loose and unconsciously humorous guesses at the vocabulary of children, students, the average man, and so on. In a reputable magazine a few years ago the statement was made that three hundred words were enough to enable the average person to carry on all the business of life. From this extreme to the other, which assumes seriously that one really has a free will to choose any one of the four hundred thousand words in Webster's Intercollegiate or in Murray's dictionary, or that Shakespeare actually used sixteen thousand distinct words, there is a wide gulf fixt. Curiously enough, very few careful records have been made of the vocabularies of young children, who surely constitute the most favorable field for such studies.

Ask a dozen persons of intelligence and information how many words a child of two years will use, and the answers fall between pretty well-defined limits. No one—in such a small group—will be likely to put it lower than twenty-five; certainly no one will put it above two hundred; the average will be close to fifty. Of some scores of people to whom I have put this question, not one has guessed more than two hundred.

The subject is no doubt an interesting one to thousands of parents continually; and so it seems to me all the more astonishing that the degree of misinformation should be so great. So far as I have been able to learn, no observations on children as young as two years have been made recently. In the Notes of the American Philological Association for 1877, Professor Holden published the results of his study of three children of this age. His figures must be regarded as extremely conservative, for he excluded all words learned in nursery rimes, and all grammatical variants.

After this rigorous pruning, one girl still had four hundred and eighty-three words to her credit, another girl three hundred and ninety-nine, and a boy one hundred and seventy-three. Altho these numbers are so far in excess of the ordinary estimate, they are probably too low for these particular children, since they were not Professor Holden's own children and no doubt used intimate words that escaped him.

Miss Tanner, in her book, *The Child*, cites a table of Tracy's, which includes the number of words used by four children of 24 months. Two boys had 139 and 285 words, respectively, and two girls 36 and 263. She also states barely: "Preyer found that nine children, eight girls and one boy, at two years had vocabularies ranging from 173 to 1121 words."[1]

With the desire to augment this slender body of material, I have undertaken to note the words actually used spontaneously by our boy during his twenty-third and twenty-fourth months. One specimen is inadequate for conclusions truly, but only by small accretions does knowledge grow; if we can get a point here and there in the curve, it need not take long to plot it.

It should be prefaced that Thomas Lynn Beyer is an only child, and perhaps more than average care was shown in encouraging the growth of his vocabulary, tho in no sense was his development forced. Two other facts probably favorable to a verbal development slightly above the normal are, first, his apparent natural fondness for nursery rimes, and, second, his removal of residence from the city at the age of one year to a small town, to Chicago at twenty months, and then back to the country again two weeks before his second anniversary. The utmost care and rigor were observed to make this list a proper and actual record, as the following conditions will show:

1. No words were included except those used spontaneously and apparently understood. That is, Mother Goose rimes furnished words which became current, but those words which the child knew only in their Mother Goose context, are omitted.

[1] A. E. Tanner, *The Child*, p. 327.

2. Words known previously but not actually used in our hearing during the two months under observation, are omitted.

3. Words used early in the period, but apparently forgotten before the end, are dropt.

4. Inflected forms are treated as distinct words only when there is a radical umlaut or internal change, such as for instance in "break," "broken;" and "foot," "feet." These are unquestionably, as Professor Whipple of Cornell pointed out, psychologically distinct words, and should be counted separately. But unlike him, I have not included any present participles. Some words appear as plurals in *s*, but these words were the child's actual usage; the singular form is not given.

Under these fairly rigid conditions, how many words did an actual child of normal antecedents (no jail-birds or geniuses for four generations back) use? This ought to be a matter of interest to teachers of English who frequently are driven in despair to conclude that college students know fewer than one thousand English symbols of thought. A boy of two is just beginning to emerge from babyhood; his interests are just beginning to expand; tho his appetite for learning is voracious, he has had practically only a year of acquisition, and is presumably to have a dozen years of as active average growth before the cartilage in his head solidifies into bone. This particular child, after a year of phonetic activity, during his 23rd and 24th months used 771 words.

To enable the reader to realize the significance of this, I should speak of the previous records at one year and at seventeen months. At the first age, one year, his vocabulary consisted of not more than twenty symbols, of which about ten were English; the others, the language of infantry, more or less completely conventionalized in his own usage. At seventeen months this meager scrap of language had grown to 160 words, most of them English—an increase in five months of 140 words or 700 per cent. At the end of the 24th month, the number, after the scrutinizing analysis I have above indicated, had grown to 771. This is 38 times the number at one year and $5^1/_2$ times the number at seventeen months. It will be seen that while the proportionate increase from one year to seventeen months was greater than from seventeen months to two years, the absolute rate of increase, that is, the number of words

per week, was nearly three times as great during the second period. From 12 to 16 months the boy learned a new word every day; from 17 to 24 months he learned three words every day, allowing 20 Sundays for rest when he acquired only two. If he should merely maintain the same rate of increase during his third year, an eventuality altogether to be expected of a normal child in health, 1055 words will be added during the year, making a total of 1826, a number astonishingly close to the 1771 words actually recorded by Professor Whipple in the use of his three-year-old son.[2] If it is true, as Professor Whipple says and as child-psychology regularly assumes, that the period between the second and third birthday witnesses the greatest expansion in thought-symbols, then we must place the probable limit much higher, possibly from 2200 to 2500. As a matter of fact, the first two weeks after the child's second anniversary, he learned about eighty words, an acceleration nearly twice as great as that of his former average; and during the 25th month, nearly two hundred (200), almost trebling the former rate.

These numbers seemed startling to me, as I presume they do to many. What of the ordinary assumption that 2000 words fit the adult exceptionally well for all of the lingual necessities and comforts of life?

Either this ordinary estimate for adults must be raised, or we must admit the most reprehensible lingual laziness in the average adolescent. I am inclined to make use of both exits of interpretation. 4500–5000 words would come nearer the mark of a working dictionary of a cultured person. For note: Altho a three-year-old has already preempted the commonest concrete words, there still remain hundreds of common concrete substantives that the ordinary boy learns before he is ten years old—a thousand such, I should think. Add to this all technical, professional, and metaphysical terms, and most subjective words learned later,—and it is difficult to estimate the total under 4000.

[2] *American Magazine*, Nov., 1911.

But, on the other hand,—a more practical concern for teachers of English—the college student is already, tho not yet completely, a bone-head lazy about new words. Every teacher who has attempted to induce students to add one good word a week to their working capital, knows how stupendous a task that seems to the student. A two-year old child gets 20 new words a week without effort; a twenty-year old student groans in great travail if he must consciously learn two. If we consider that there should be 25 interesting words for the freshman to every one within the ken of a two-year old, the contrast stands out all the more darkly.

Certain other notes containing various interests might be made on this vocabulary.

First, the large number of verbs, 143, and the relatively small number of adjectives. If this emphasis of words of action could be maintained, what a gain in vividness and point to the ordinary talking or writing vocabulary! At first many verbs did duty as substantives, as for instance: "cuts" for "knife," and "box-knocking" for "hammer," and "talk-on" for "telephone."

Second, the peculiar words and expressions, some of which we have never succeeded in translating into English. "Hize" and "hahn" evidently have clear concrete meanings, but what they are we can not determine. "Saxy-gimps" is the key-word to which the reply is "pecheur." These were retained from the first year and seem to be mere chortles of contentment. "Gong-gong," a very expressive reduplicative, means any funny thing, a potato-masher, any one of a number of articles of feminine apparel, or the gargoyles in the architecture of the University of Chicago. It is sole heir of a vast army of "ginks" and "ganks" and "gunks" that used to be called into requisition before his vocabulary had reached the hundred mark. "Tum-tumpt" for "stand up" is fairly clear of origin, dating from the time he was warned not to stand up for fear he might tumble. A "talk-on" and a "box-knockin" have already been mentioned in another connection. The former is a

beautiful illustration of double derivation, such as, for instance, "Margaret" in English, and "karfunkle" in German. A foreign and a native word often coalesce in this way more or less perfectly to give anxiety to the etymologist.

Third, and most interesting, the appearance of foreign sounds in his pronunciation. Until recently it was taken for granted that children learned by imitation to make the same sounds as those around them. Dissent to this notion of child-psychology is found now on many sides. The child has a tendency, it is said, to make sounds of all sorts, just as it has a tendency to perform actions in every direction. From these sounds that it naturally makes, it learns to select those most frequently used in its hearing, until finally the result is essentially the same as tho it had really imitated with conscious purpose. This later view my observation tends to confirm in a curious way.

All the people intimately associated with this boy speak ordinary middle-western American English, which the people of the middle-west admit to be the norm of spoken English. Yet from the first a strong French tendency was evident in his pronunciation. "No" became "nong-nong" with a more perfect French nasal than most Americans ever get. The French *u* was very prevalent. "Cook" was "kunk," "push" was "pish," "monkey" was "minkey," "pencil" was "pong-cil," and the unknown word "pecheur" was very Frenchy. By some curious freak of coincidence his cap was a "chapeau." Had this boy been born in France, these sounds would have been "selected" and he would have talked French as we say naturally. As it is, they have nearly all disappeared in the last few months.

The German tendency is strong in "goot" and "oudt," tho he has no difficulty with either d or t in other connections. For "I" he usually uses a long Swedish "ay" with a most Scandinavian accent. The English or continental *a* gets first choice in a great many words where it does not belong and where certainly he never heard it, as in "daddy," "bank" and "blanket." The Italian *a* as in "pass,"

"grass," and so on, is given with much more ease and sang froid than by any others in his household; while the flat Yankee sound which he has undoubtedly heard all too often, is practically absent altogether from his speech.

I do not know how to account for these peculiarities except on the theory that he selects, and does not imitate. In itself such evidence would be too fragile to bear any weight perhaps; but as a thread in the rope it supports the others.

* * * * * * * *

To the student of psychology there is a theoretical interest in such observations as I have imperfectly recorded; to the teacher of English Composition there should be a vital practical issue. It can not be doubted that thought and language are inseparable. It does not greatly matter whether one puts thought, the egg, or language, the hen, first. No language, that is, no symbols, no thought; vague, blunderbuss, generic symbols,—vague, blunderbuss double-pointed thought; sharp, fine, distinct words, sharp, fine, distinct thought. Therefore shall it not become a shameful thing and not to be tolerated for college men and women to continue to do business upon the verbal capital inherited from their unconscious childhood, plus a few hundred of words absorbed during their imperfectly conscious school-days? Shall the teacher of English not demand some conscious effort to augment the needs of the organ of thought? Tooting on the pipes of infancy continues childish music thru adult life. It will be only by adding new avenues of intake and outgo that adult life and thinking can grow into the richness and variety and color that should be the personality.

VOCABULARY OF LYNN BEYER TAKEN DOWN DURING THE 23RD AND 24TH MONTHS—JUNE 15, 1914

A.	aint	another
a	all	apple
about	all right	apple sauce
after	am	apron
afternoon	an	are
again	and	arm

around
at
at all
aunt
auto
away

B.

baby
back
backwards
bad
bag
ball
balloon
bacon
banana
bangs (n.)
bank
bare
bark
barley
barn
basin
basket
bath
bath tub
bath robe
bath room
be
beads
beans
bear (n.)
bed
bed room
before
bells
belly
belong
belt
bench
beside
best
better (adj.)
better (adv.)
bib
big
bird
bit (n.)
bit (v.)
bite (n.)
bite (v.)
black
bless (n.)
block
blue
boat
bone
book
book case
both
bottle
bow-bow
box
box-knocking (hammer)
boy
bread
bring
break
breakfast
broken
brush (n.)
brush (v.)
blanket
bucket
bug
buggy
build
bump (n.)
bump (v.)
burn
bush
busy
butter
button
button shoe (button hook)
by

C.

cabbage
cake
call
candy
can (n.)
can (v.)
cane
can't
cap
careful
carpet
carry
cart
cat
cat bird
catch
chair
checkers
checker-board
cheek
cheese
chest
chew
chicken
chin
chip-munk
chocolate
church
clean
climb
close (a.)
close (v.)
closet
clothes
clown
coal
coal bucket
coat
cockatoo
coffee
coffee-pot
cold (a.)
cold (n.)
collar
college
color
comb
come
comfort (n.)
cook
corn
corn cob
corner
couch
cow
cracker

cradle
cream
cream pitcher
crumb
crust
cross (v.)
cry (v.)
cup
cupboard
curtain
cushion
custard
cut (v.)
cuts (n.)
(knife)
cover

D.

daddy
dame
dance (v.)
dancy-boy
dandy
dande-lion
dark
day
daughter
dear
di(aper)
dinner
dirty
dish
dish-pan
do
doctor
dog
doll
doll buggy
don't
donkey
door
dope
down
down stairs
drawer
dress (n.)
dress up
dresser
drink (n.)
drink (v.)
drop (n.)
drop (v.)
dry
duck
dust (n.)
dust (v.)
dust-pan

E.

each
ear
early
easy
eat
edge
egg
eight
empty
end
enough
eye
eye-brows

F.

face
fall
feed
feel
feet
find
fine
finger
fire
five
fix
flag
flew
flower
floor
foot
for
fork
found
four
fox
fresh
froggie
front
frying-pan
full
funny
fur
further

G.

game
garden
gentle
get
giant
girl
give
glass
glass (mirror)
glass (vessel)
glasses
gloves
go
going to
gong-gong
good
good by
good night
goose
got
graham
grass
great
ground
guess

H.

hahn (?)
hair
hair-pins
hall
hammock
hang
hand (n.)
hand (v.)
handle
happy
hard
has
hat
hear
heavy
heel
help

her
here
hiccups
high
him
hit
hize (?)
ho
hold
hole
home
hop
horse
horse-shoe
hot
house
how-d'u-do
hug
hum-bug
hum-hum
humpty-dumpty
hungry
hurry
hurt

I.

ice-cream
in
ink
into
iron
is
it
itten
(listen ?)

J.

jacket
joke
juice
jump

K.

keys
kick
kimono
kind
king
kiss
kitchen
knee
knock

L.

laddie
lady
lame
last
latch
laugh
left (adj.)
legs
let
letter
lie
lift
light
like (conj.)
like (v.)
little
look
lots
low

M.

machine
mail
make
man
market
matches
meat
mercy sakes
mice
mickey me (?)
milk
milk-man
mine
minutes
mocassins
money
monkey
moon
more
mouse
mouth
move
"movies"
mud
muddy
muff
muffler
much
must
mustn't
my

N.

nail
napkin
naughty
near
neck
neck-tie
need
new
next
nice
nickle
night
nightie
nine
nipple
no
no sir
noise
none
nose
not
note-book
now
nuts

O.

oatmeal
o'clock
oh
of
off
old
on
one
open (a.)
open (v.)
o-poss
orange
ouch
out
out-doors
out-side

over
over-shoes
own

P.

package
pajamas
pan
pants
paper
park
parlor
parsnips
party
pat
pea-pod
peas
peach
pecheur (?)
peek-a-boo
pen
pencil
penny
people
pepper
pepper-mint
(per)oxide
petticoat
piano
pick
picture
pie
piece
pig
pillow
pin
pinch
plate
play
please
pocket
pooh-pooh
poor
porch
potatoes
potty-potty
powders
prayers
pretty
pretty
pudding
pull
pump
push
put

Q.

queen

R.

rabbit
rail road
rain
rascal
rat
rather
rattle
read
ready
red
rest
rice
ride
right hand
right way
ring
rises
road
robin
rock
rockaby
rocking-chair
roll
rompers
room
round
row
rug
rump
run

S.

salt
saucer
saxy-gimps (?)
say
school
scratch
see
sell
seven
sew
sewing (n.)
shake
sharp
shawl
she
sheep
shirt
shoe
shoulder
show
shut
sick
side
sing
sit
sitting room
six
skirt
sleeps
slipper
smash
smoke
snake
sneeze
snow
so
soap
soap-stick
socks
some
somebody
something
son
song
soon
sore
sorry
sour
spank
spill
spoil
spoon
spring
squirrel
stand
star

stay
steeple
steps
stick
still
stockings
stool
stop
story
stove
strap
street
stretch
suck
summer-day
sugar
sun
sun-rise
sun-shine
sure
sweater
sweet
sweet-potatoes
swing

T.

table
table cloth
tail
tall
talk
talk-on (telephone)
take
tan
tatting (n.)
tea
tea-cup
tea-pot
tear (n.)
tear (v.)
teeth
ten
thank you
that
these
thimble
things
think
this
those
thru
three
threw
throw
thunder
tickle
tie
tight
tired
tick-tock
tomato
tongue
to
toast
today
toes
together
tooth
tooth-pick
too
top
torn
touch
towel
town
train
tree
trim
trousers
trunk
try
tub
tum-tumpt
turn
twinkle

U.

uncle
under
up
up-stairs

V.

very
veil

W.

waggle
wagon
wait
wall
walk
want
warm (adj.)
warm (v.)
wash
wash-board
washie
watch (n.)
watch (v.)
water
welcome
well
wet
wheel
where
whistle
whiskers
white
wind
window
wings
wipe
witch
witch-hazle
woman
wood-chuck
wonder
work
write
wrong

Y.

ya-ya
yellow
yes
yet
you
you's
your
your self

Proper Names

Angel Child
Aunt Caro
Aunt Annie
Aunt Lizzie
Aunt Margaret

Baby Bunting
Bo-Peep
Boy Blue
Boy Cupid
Boy Jesus
Cecie
Chicago
Cousin Blanche
Cousin Charles
Curly Locks
Daddy Tom
Dame Trot
Daisy
Doctor Talbert
Doc Yak
Emma
Goldy Locks
Grandma Beyer
Grandpa Lynn
Helen
Humpty-dumpty
Isabel
Jack
Jill
Jack Horner
Jocko
Jolly Miller
King Cole
Lynn
Mamie
Margaret
Miss Damman
Mr. Jiggers
Mr. Ricker
Mrs. Beyer
Mrs. Green
Mrs. Talbert
Mother Hubbard
Mama
Mother
Paul
Peggy
Percy
Pete
Peter Pan
Polly Flinders
Ruth
Tarkio
Tom (the Piper's son)
Tubby
Uncle Josiah
Uncle Doctor Postlewait
Uncle Tom
Winnie
Xerxes

THOMAS PERCIVAL BEYER

ST. PAUL, MINNESOTA

VII

DISCUSSION

THE MOVING PICTURE AND THE SCHOOL

THE FIRST ORGANIZED VISUAL INSTRUCTION AND WHAT PRECEDED IT

"Ooh! What is that little seed? Look, it's swelling up," whispered a little girl to her seat-mate, as she eagerly gazed at a motion film being operated in her own darkened schoolroom.

A class in botany was having the next day's lesson in plant growth explained by means of the motion film. The children were crowded in one side of the room—none played truant on motion picture days—while some home folks who had "just dropt in" occupied the other side.

"There's a shoot," exclaimed the excited child, before the other could reply. "It's a nasturtium, I know it by the leaf. And there's a bud coming!"

"Yes," her companion whispered back, "and there are some more buds too. Watch 'em grow."

A chorus of "ah's" greeted the opening flowers, and, "My! That's a big bunch of blooms for one plant."

"Oh, they're all dying," cried a distrest voice in the back part of the room.

What a real fairy story for big folks as well as little folks! A plant had burst into life, grown luxuriantly, borne flowers, and shriveled up before their eyes in ten minutes!

Look again in that little country schoolhouse. The film is gone, but the room is still dark, for they are showing slides, now, of birds. One of the older pupils is telling how and where the different birds build their nests.

"Doesn't he know a lot about birds?" one of the visitors remarked.

"Yes, but he did not know so much this time last week,"

volunteered a classmate. "He's been studying the lecture material they send in advance of the slides."

"My brother is going to lecture next week," a small boy said proudly. "It's about Shakespeare and 'The Merchant of Venice.' We have a show every week now, afternoon and night performance, just like a real theatre."

The little scene which is representative of what took place weekly in four schools in Wisconsin last spring, and at irregular intervals in seventy, will be re-enacted in more than 220 next year, for the University of Wisconsin is now ready with 15,000 slides and 220 films to distribute thruout the state. The supply, moreover, is constantly being increased; the university is making its own slides and will be prepared, before the year is out, to make its own films.

Without charge one set of slides and one motor film will be sent to any school that applies for the privilege. Expressage to the next place is the only expense, and, as this amounts to less than 35 cents for each time, less than $12 for thirty-five visits during the year, this expense is negligible.

A regular schedule of routing went into effect September 24, 1914—the first *organized* visual instruction.

The Bureau of Visual Instruction was organized at the University of Wisconsin, January 22, 1914, with Prof. W. H. Dudley as the head.

Professor Dudley, for seventeen years an instructor in biology at the State Normal School, Platteville, Wisconsin, was widely known for his work in visual instruction. He not only used the stereopticon and motion picture machine in his own classroom, but he was the inventor of the Badger stereopticon, was making his own slides and lending them thruout the state, and was adapting the mechanism of the motion picture machine to the stereopticon.

When he took charge of the Bureau, January 22, he found about 1200 slides and six films. By June 1 he had sent out 19,080 slides and 220 films; seventy different schools had used slides and films from the university, and four had a weekly delivery during the latter part of the term.

Several schools not supplied with a motion picture mechanism borrowed one from a nearby Chatauqua, or, thru the courtesy of the local moving picture man, ran in the town show the films sent from the university.

Permission to charge admission fee was given when the money thus obtained was to be used for purchasing a motion picture machine.

Between 200 and 225 schools in Wisconsin already have stereopticons, but they have, on an average, only 48 slides apiece. Nearly 20 have motion picture machines, but they own no films. Hence the efforts of the university have been directed towards providing both slides and films.

Those schools that have merely the stereopticon may adapt this to the motion picture mechanism, which may be purchased for $108. This low price was secured from the makers thru their cordiality to the project of installing the machines in the schools.

A kinetoscope—a combined motion picture mechanism and stereopticon—may be obtained, complete, for from $170 to $270.

The expense of operating a motion picture machine with electricity is negligible, but where oxyhydric gas is used, fuel costs nearly $1 an hour. A stereopticon may be operated for less than 9 cents an hour.

Interesting films that would be valuable in the library of the school's motion pictures are the following:

A Lesson in Etiquette, made at the University of Minnesota, in which a group of eight students at one table are observing all the rules of etiquette, while at another, eight other students are breaking every rule known to refined people; How to Cook a Wholesome Meal, another reel from the same university; Sanitary Homes and Better Babies, made at the University of Nebraska and shown to more than 100,000 people last year; Indigestion, made by Dr. Lewis Gregory by the aid of the X-ray, showing the whole process of indigestion in a diseased stomach from the time food enters; and The Work of the Heart, a new French reel in which one sees the blood pumped thru the body.

Films of industrial pursuits are also being used by the schools. Last spring class-day exercises at one of the Wisconsin schools consisted of an afternoon and night show, at each of which two different reels were shown.

In the afternoon, Fruit Growing in Washington, Raising Bulb Flowers; and at night, The Bee and Bee Keeping, Milk and Its Products.

"Say, Dad, I'll take that farm up the country you offered me the other day; I'm going to try my hand at fruit growing," one of the boys said to his father, while the fruit was growing in lusciousness, as well as dollars and cents, before their eyes.

As the bulbs burst into bloom, a slender, delicate-looking girl clasped her hands contentedly and breathed out, more to herself than any one else:

"Now I know what I'm going to do with the $50 Uncle John gave me."

When the bees made their honey, two boys, evidently chums, winked understandingly across the hall. Their acquiescent nods meant,

"We'll do that this summer."

"How much will you pay me to take charge of the dairy?" a long, lanky lad, inspired by the milk story, asked a worn little mother who had feared her only son was going to yield to the lure of the city.

"We'll see if we can't make it pay even more than when father was living," he said, after her happy promise to give him "$15 a week with the prospect of a raise."

Was there any better way to precede the "commencement" of life than that—to suggest to those boys and girls, blindly groping around for "something to do," a field for their energies?

Charles W. Eliot, president emeritus of Harvard University, spoke understandingly when he wrote to the Bureau of Commercial Economics, recently established in Philadelphia for the purpose of lending industrial films gratis, with the single stipulation that no admission fee be charged:

"It seems to me that your new scheme for giving indus-

trial education by moving pictures is a highly promising one.

"You are proposing to do on a large scale what Benjamin Franklin's father did for his son, who was deciding on the choice of a trade. The father took the boy about Boston and showed him work going on in as many trades as were then represented in the little town. It was only after having seen the work done in the various trades that Benjamin decided to be a printer."

The need which gave rise to the industrial films in the school motion picture was recognized by the Honorable Miles Poindexter, senator from Washington, when he said:

"To my mind one of the great educational problems of the day is fitting the boy for the job. Too many of our young men are being graduated from schools and colleges, educated for a work they will never follow because they are not suited to it and uneducated in the lines where they might have made a great success."

"A person can be taught thru his eyes the exact processes required in the manufacture of goods made by our great industrial institutions that otherwise would require years of application to learn and understand," was the endorsement of Senator Smoot of Utah to the work planned by the bureau in Philadelphia.

One of the first schools to discover the value of motion pictures in technical training was the Sheffield Scientific School in Connecticut. So successful was its initial film, The Story of Pig Iron, that the authorities immediately began negotiations with other firms in the scientific lines to obtain the story of their industry.

The varying face of a clock, by which the time of every movement of a workman is recorded, has been added to some of the industrial films by Frank B. Gilbreth.

Our own country, however, is not to be the only beneficiary of the industrial film.

"By China, especially, whose industrial activities are scarcely started, the influence of this wonderful work will

be most noticeably felt," declared H. W. Ip, of the University of Pennsylvania.

Forty universities have already signified their intention of using the films, slides and lecture material of the Bureau of Commercial Economics. In addition, it is expected that high schools, social centers, Sunday schools, Y. M. C. A.s and Y. W. C. A.s, scattered all over the country, will avail themselves of the privileges offered.

As a drawing card for social centers, the school motion picture is proving its third claim to attention. In an isolated Wisconsin town, last year, a reel sent from the university was the first the audience had ever seen.

In the words of John Collier, Secretary of the National Board of Censorship:

"The social center has to study the commercialized amusements, and be as gracious as the saloon, as lively and rythmic as the dance hall, and as profound as the motion picture hall."

Anything that will bring 4,000,000 people a day—the number that attend moving picture shows in the United States—under wholesome and inspiring influence should most certainly be utilized. The development of "the capacity to have fun without doing wrong" means, thru the leavening of the masses, the rejuvenation of the nation.

In waging campaigns, local and national, the school motion picture has been particularly useful to social centers. The Fly Pest was sent out more than any other film from the University of Wisconsin during the last six months. The reel exhibited fly specks on meat which developed into a crawling, disgusting mass of maggots, and these in turn into the detested fly. The flies flew to a cuspidor used by a tubercular person, and from that to a nipple in the mouth of an unconscious baby victim.

Finally, a fourth phase of the school motion picture has made itself evident—a means of giving religious and moral instruction.

The pitiful ignorance of the twentieth-century child in the beautiful Old Testament Bible stories has been

helplessly deplored for some time. A few years of concerted action with motion films on biblical lore would entirely dissipate this ignorance.

In missionary work the value of motion pictures has been found incalculable, not only in teaching Bible truths, but also in bringing to the Orient the civilization of the Occident.

Of the good done by the motion picture in India, Behari Lal, special missioner in Lucknow, tells in quaint language:

"The Maharajah Gaikwar, of Baroda, the only most sensible prince India has today, has in his estate established the traveling moving picture shows and to educate the people is the only ultimate object. The system is appreciated by the people of all ages, young and old. The demand is increasing immensely. This is the best missionary work that can be thought of."

On the other hand, showing on the motion picture the work and the need of the work in missionary fields has proved an inspiring source of information to those far from the scene of action.

While some schools, notably in Massachusetts and Kansas, have devoted almost the entire use of the motion picture machine to the teaching of morals, more care is necessary in that line than in any other, for it is dangerous to depict the evil effects of any habit. The moral disgust resulting is often not as potential as the unconscious fascination of imitation.

As a recognized factor in the education of the world at large the motion picture has made rapid strides. The United States has been using motion pictures for almost two years to show its officers and congressional committees the status of affairs in Panama, the Philippines, and Alaska. It is also sending out Rubes' Theatres, as the demonstrating cars of the Department of Agriculture have been dubbed, to farmers all over the country, to teach in twenty minutes on the screen what formerly took weeks and months at the experimental stations. Orange, New Jersey, the home of Mr. Edison, has the distinction of being the first city

to have motion picture machines installed in *all* its schools. A four-year course in the art and science of cinematography is offered at the University of Rochester. Members of the *Académie Française* voted more than a year ago in favor of living photography. Prussian authorities have been using motion pictures for several years in the Berlin schools, which are said to represent one of the most advanced educational systems in the world. Street railway officials in Vienna and Düsseldorf are showing in the town motion picture the right and wrong way of getting on and off cars.

If it is true, as has been recently said, that Americans are an "eye-minded" people, surely it looks as if there is going to be "a royal road to learning"—the old proverb to the contrary, notwithstanding; at least, the road will be so well lighted on the screen that there will no longer be any stumbling.

As W. H. Ives has said: "The motion picture probably offers the greatest opportunity educators have ever had to eliminate waste effort and to reach by easier and more agreeable paths the same results which are now attained with difficulty."

Moreover, if "the bitterest foe of crime is knowledge," evil as well as ignorance will tend to disappear with the school motion picture.

Therefore, for educational, industrial, social, religious, and moral purposes, it behooves every school to have a motion picture machine, and every portion of the country to have a centralized distributing agency from which a weekly delivery of films and slides is made to every school.

"It is easier to undervalue than to overvalue moving picture shows as a means of giving instruction in school or out."

ALICE JOUVEAU DU BREUIL

WASHINGTON, D. C.

VIII

REVIEWS

The Department of State of the United States: Its history and functions—By GAILLARD HUNT, Litt.D., LL.D. New Haven: Yale University Press. 1914. 459 p. $2.25.

The subject of this book is one of very great interest to the intelligent people of the United States, and the author is one of the most competent persons to deal with it. We only wish that he had adopted a more attractive method of treating his subject and commanded a more finished literary style. There is nothing concerning the history, development, organization and functions of the Department of State that is not set out with accuracy and substantial completeness in these pages. A great many important documents are quoted in full, particularly those which have served to establish forms and to fix traditions in the handling of the department's business.

That the Department of State is not yet properly organized or able to command the services of highly trained experts such as dignify and give power to the foreign offices in Europe, is plain. Secretary Root and Secretary Knox made considerable headway in reorganizing and in modernizing the Department, but Congress will have to give the Secretary of State a much freer hand than now and also become more appreciative of the importance of the Department's business than it has been in the past, before anything approaching a truly effective organization can be brought about. Despite recent changes, there are now in the service of the Department and have been for some years, a group of able and experienced men who know no party politics and whose only purpose is to study the nation's foreign policy and interests and to forward them. To such men as these should be given a larger measure of freedom and responsibility as well as more adequate compensation.

If Mr. Hunt's book could be read and pondered by the members of the Committees on Appropriations and on Foreign Relations of the Senate and the House of Representatives, some progress toward improving the Department and strengthening it for its vitally important work might be expected. N. M. B.

We are very much interested to see a book entitled *Geometry of four dimensions* by Professor Henry P. Manning of Brown University. Twenty-five years ago such a book would have found but a score of readers, while now it may reasonably be expected to become familiar to a considerable body of mathematical teachers and students. The whole theory of n-dimensional space is a fascinating one, but one before which the ordinary imagination falls back helpless. The author's introduction to the present volume is a genuine one because of the help which it gives to the reader in undertaking the study of the theorems and demonstrations which follow. Professor Manning points out that a study of the fourth-dimensional geometry enables one to prove the theorems in geometry of three dimensions, just as a consideration of the latter enables us to prove theorems in plane geometry. The book is a very scholarly and searching piece of work. (New York: The Macmillan Company. 1914. 348 p. $2.00.)

In his *Elementary geometrical optics*, Mr. A. S. Ramsey of Magdalene College, Cambridge, has provided a textbook with a rather specific and local use in mind. Nevertheless it will be found helpful outside of Cambridge as well as in that university. (London: B. Gell & Sons. 1914. 173 p. 6s.)

It is a pleasure to know that a fifth edition, revised and enlarged, has been printed of Professor J. L. R. Morgan's *Elements of physical chemistry*. In its most recent form not only has the size of the volume been increased, but the text itself has been largely rewritten. (New York: John Wiley & Sons, Inc. 1914. 506 p. $3.00.)

A pretty elementary book for high school students is *A practical chemistry for high school students* by Dr. Charles G. Cook of the Boys' High School, New York City. (New York: D. Appleton & Company. 1914. 366 p. $1.25.)

A more advanced work and one which aims at a satisfactory union of the theoretical and practical is *General chemistry* by Professor Lyman C. Newell of Boston University. (Boston: D. C. Heath & Company. 1914. 174 p. $1.25.)

Still another book on elementary chemistry, this time one intended for students of home economics, is *Elementary household chemistry* by Professor John F. Snell of McGill University. The last chapters of the book, particularly those dealing with textile fibers, bleaching and dyeing, seem to be unusually well done. (New York: The Macmillan Company. 1914. 307 p. $1.25.)

In the well-tilled and well-planted field of agricultural textbooks we have received *Forage plants and their culture* by Charles V. Piper of the United States Department of Agriculture. (New York: The Macmillan Company. 1914. 617 p. $1.75.)

Food products by Professor Henry C. Sherman of Columbia University deserves more than a passing notice. It is a really excellent textbook and presentation of its subject. An exceptionally useful feature of this book is to be found in the appendices which deal with the Food and Drug Act and the various administrative and judicial decisions as to its enforcement. (New York: The Macmillan Company. 1914. 594 p. $2.25.)

An old friend in a new dress is found in *Essentials of college botany* by Professor Bessey of the University of Nebraska and Professor Ernest A. Bessey of Michigan Agricultural College. It is the eighth edition, wholly rewritten, of the well-known *Essentials of botany* which appeared a generation ago. (New York: Henry Holt & Company. 1914. 409 p. $1.50.)

IX

NOTES AND NEWS

The Junior College The plan of building on the foundation of a strong high school the so-called junior college, with a programme of studies to include the work usually offered in the freshman and sophomore college years, is steadily gaining favor. In 1911 the legislature of California past an act enabling the high school board of any high school district to prescribe post-graduate courses of study for the graduates of such high school, or other high schools, which course of study was to approximate the studies prescribed in the first two years in the university course. It is to be presumed that the author of the act meant not university courses, but college courses. If he did not, his words meant nothing.

Already the provisions of this act have been taken advantage of in Fresno, Los Angeles, Fullerton, Santa Monica, Long Beach, Santa Barbara, Auburn, Le Grand and Bakersfield. The Commissioner of Secondary Schools in his last annual report states that 662 students were enrolled in the first year of these post-graduate high school courses and 82 students in the second year.

The program of studies for these students includes English, Latin, the modern European languages, mathematics, physics, chemistry, history, logic and psychology, economics, sociology, agriculture, shop work, and drawing.

There is no reason why, under competent direction and with a suitable staff of teachers and adequate equipment, these junior colleges should not prove very useful, particularly in the western and southern states. They certainly increase the educational advantages that are at the disposal of a large part of the population and they are of distinct assistance to the young student who, while intellectually ready for college work, is either by temperament

or by character not wholly prepared for the responsibilities and problems that are incident to college and university residence. The best and most ambitious students in these colleges will be certain to go forward to the state university or to some other institution of higher learning. The state universities which stand in direct relation to this junior college work should make certain that the name junior college is not used to cover poor and unscholarly work either thru weakness or because of an unjustified local ambition.

NOTICE—The attention of subscribers of the EDUCATIONAL REVIEW is called to the fact that the Title Page and Index for Vol. 48 are to be found in the December number, following the reading matter.

All subscriptions are cut off promptly at expiration. Renewals should reach this office before the 15th of the month in order that they may be entered on the mailing list.